

Published every Saturday by the
**Simmons-Boardman Publishing
 Corporation, 1309 Noble Street,
 Philadelphia, Pa., with editorial
 and executive offices: 30 Church
 Street, New York, N. Y., and 105
 West Adams Street, Chicago, Ill.**

SAMUEL O. DUNN, *Chairman of Board*
 HENRY LEE, *President*
 LUCIUS B. SHERMAN, *Vice-Pres.*
 ROY V. WRIGHT, *Vice-Pres. and Sec.*
 FREDERICK H. THOMPSON, *Vice-Pres.*
 ELMER T. HOWSON, *Vice-Pres.*
 F. C. KETCH, *Vice-Pres.*
 ROBERT E. THAYER, *Vice-Pres.*
 H. A. MORRISON, *Vice-Pres.*
 JOHN T. DEMOTT, *Treas.*

CLEVELAND
 Terminal Tower

WASHINGTON
 1081 National Press Building

SEATTLE
 1038 Henry Building

SAN FRANCISCO
 485 California Street

LOS ANGELES
 530 West 6th Street

Editorial Staff

SAMUEL O. DUNN, *Editor*
 ROY V. WRIGHT, *Managing Editor*
 ELMER T. HOWSON, *Western Editor*
 JAMES G. LYNE, *Assistant to Editor*

C. B. PECK
 ALFRED G. OEHLE
 F. W. KRAEGER
 E. L. WOODWARD
 J. H. DUNN
 D. A. STEEL
 R. A. DOSTER
 H. C. WILCOX
 NEAL D. HOWARD
 CHARLES LAYNG
 GEORGE E. BOYD
 WALTER J. TAFT
 M. H. DICK
 E. J. PHILLIPS
 JOHN H. KING
 W. H. SCHMIDT
 JOHN S. VREELAND
 C. L. COMBES

*The Railway Age is a member of
 the Associated Business Papers (A.
 B. P.) and of the Audit Bureau of
 Circulations (A. B. C.).*

Subscriptions, including 52 regular
 weekly issues, and special daily edi-
 tions published from time to time
 in New York, or in places other
 than New York, payable in advance
 and postage free. United States,
 U. S. possessions and Canada: 1
 year, \$6.00; 2 years, \$10.00; foreign
 countries, not including daily edi-
 tions: 1 year, \$8.00; 2 years, \$14.00.

Single copies, 25 cents each.

H. E. McCandless, Circulation
 Manager, 30 Church St., New York,
 N. Y.

Railway Age

With which are incorporated the Railway Review, the Railroad Gazette
 and the Railway Age-Gazette. Name registered U. S. Patent Office.

Vol. 107

October 21, 1939

No. 17

In This Issue

Raising Long Passenger Bridge Under Traffic No Easy Task . . . Page 615

A discussion of the interesting methods devised by the Pennsylvania in carrying
 out this project at Harrisburg, Pa., thus obtaining the additional under-clearance
 needed for electrified operation.

Baldwin Addresses Mechanical Associations 620

An abstract of the principal address delivered by L. W. Baldwin, Chief Execu-
 tive Officer of the Missouri Pacific, at the opening of the joint session of the
 four supervisors' associations.

Urges R. R.s to Drop Defeatism 623

Extracts from an address by C. E. Johnston, chairman of the Western Associa-
 tion of Railway Executives before the Western Railway Club in which he con-
 tends that rate revision would recapture long-haul freight and that railroad
 problems are a challenge—not a death-blow.

EDITORIALS

Hitlerism at Home.....	611
Penny Wise—Pound Foolish.....	614
The Gains in Railroad Traffic.....	614

GENERAL ARTICLES

What Will the Traffic Bear?—36.....	613
Raising Long Passenger Bridge Under Traffic No Easy Task.....	615
A Passenger Salesman Gets a Load Off His Chest.....	619
Baldwin Addresses Mechanical Associations.....	620
S. A. E. Chicago Section Transportation Meeting.....	622
New Products Alter Fire Hazards.....	622
Urges R.R.s to Drop Defeatism.....	623
Diesel Hydraulic Switcher Shows Flexible Characteristics.....	625

NEWS 628

*The Railway Age is indexed by the Industrial Arts Index and also by the
 Engineering Index Service*

AUTOMATIC SIGNALS

Help Improve —



-- **"ON TIME"** *performance*

"UNION" Automatic Signals save delay time by reducing the time interval between trains. As a result, "on time" performance is greatly improved and the bettered service is a goodwill builder with the shipping and traveling public. Maximum safety for increased train speeds is assured; operating expenses are reduced, while train loading and operating efficiency are increased.

These facts are substantiated by the records of railroads whose operations are protected with efficient signal systems.

Why not bring your signaling problems to us?

1679

UNION SWITCH & SIGNAL COMPANY

SWISSVALE



PENNSYLVANIA

NEW YORK

ST. LOUIS

SAN FRANCISCO

CHICAGO

RAILWAY AGE

Hitlerism at Home

Many publications and persons that are opposed to both Communism and Naziism have been gleefully emphasizing to Communists, Socialists and other radicals, and to members of the German Bund and other sympathizers with Naziism in this country, the alleged inconsistency of the co-operation that has been adopted by Dictators Stalin of Russia and Hitler of Germany. Readers of Hitler's book "Mein Kampf" and his speeches know that, until after the present war began, his utterances consisted largely of bitter diatribes against "Marxism" and its exemplification by bolshevism in Russia. Likewise those familiar with modern Communist, Socialist and other kinds of radical literature, whether emanating from Russia or prepared as well as disseminated in this country, know that it has consisted largely of diatribes against Naziism. Both the Nazis and the Communists have claimed that among their principal purposes has been that of exterminating each other; and yet their leaders in Germany and Russia have now united not only to destroy Poland but also apparently to destroy democracy and private enterprise in Great Britain and France, and perhaps in other countries.

Stalin and Hitler Become Consistent

There never has been any real difference, however, between the policy of Stalin and Hitler. That policy has been, and still is, what has been called "stateism"—that is, the policy of concentrating unlimited power in the government and then using it to crush every form of individual freedom and private enterprise. Communism in Russia and elsewhere always has avowed its purpose of destroying private property and private enterprise by making the state the sole owner and manager of property—all, ostensibly, in the equal interest of all the people. Naziism has pretended that its policy is to leave the ownership of property to the people, but to concentrate all power in the state in order that all the activities of the people, including their use of property, can and will be so controlled and directed as to promote the best interests of all.

Under both systems the dictator is actually the state, and uses all the people and all property as if they belonged to the state. The result is that there is what is

called "totalitarianism" in both Russia and Germany; and the real inconsistency between Stalin and Hitler has been that, for their own purposes, while following the same policy, each has abused and declared a war of extermination against the other for following it. Consequently, by ceasing to abuse each other and beginning openly to co-operate, Stalin and Hitler have simply substituted complete consistency for their former partial inconsistency.

Stalinism and Hitlerism at Home

We recommend their example to a lot of people in the United States who loudly denounce and pretend to oppose Communism, Socialism and other forms of radicalism, while constantly, in their own real or supposed selfish interest, promoting socialistic policies in this country. For example, practically all our business men pretend to be opposed to socialistic policies of every kind. And yet **there are two organizations of business men that are constantly engaged in promoting socialism, and trying to destroy private enterprise, in the field of transportation.** These are the Mississippi Valley Association and the National Highway Users' Conference. The former exists mainly to promote transportation by inland waterway, and the latter solely to promote transportation by highway. They have large funds for carrying on their activities which obviously are furnished by business men who profess to be opposed to all socialistic policies. No other newspaper in this country attacks oftener or more bitterly than the Chicago Tribune certain important policies of the New Deal for their socialistic tendency toward the establishment of stateism; and yet the Tribune encourages the two organizations of business men mentioned in their promotion of socialistic policies.

Mississippi Valley Association on "Political Domination"

The Mississippi Valley Association held its annual meeting in St. Louis this week; and in an article in its issue of October 16 by one of its staff correspondents the Tribune quoted a statement by Lachlan Macleay,

president of the association, in which he said the subjects discussed would include "the federal bituminous coal price-fixing scheme and the efforts being made in Congress to put the inland waterways under political domination through the Interstate Commerce Commission," and that "the last two proposals will be opposed by the association." The railways are as much privately owned as the coal mines. Why, then, should the association favor continuance of railway rate-fixing by the government and oppose coal price-fixing by the government? And if the Tribune is opposed to railway rate-fixing as well as coal price-fixing, why does it not expressly say so, instead of merely talking in generalities about "freeing the railways from government red-tape?"

And as to "political domination through the Interstate Commerce Commission"—virtually all the investment in the railways has been made by private owners of capital, while all the money that has been invested in inland waterways has been taken from the taxpayers and spent by the government. If, then, the rates charged by the railways for carrying freight via property owned by themselves should be fixed by the government, why should not the rates charged by barge lines for carrying freight via waterways owned by the government also be fixed by the government? And why, as the railways provide their own highways, should not those using waterways provided and owned by the government be required to pay for their use? And yet, while the association favors continuance of government fixing of railway rates, it not only opposes making those using waterways pay for it, but even opposes government fixing of waterway rates upon the ground that it would be "political domination." If to subject inland waterway rates to regulation by the Commission would be "to put the inland waterways under political domination," what will it do to the railways to continue regulation of their rates by the Commission? And if it doesn't prove political domination of government transportation policy as a whole for most competitors of the railways to be government-subsidized as the railways are not, and not to be regulated as the railways are, then just what does it prove?

"Stateism" in Transportation

Those in this country who promote socialistic transportation policies and at the same time pretend to oppose socialistic policies in general are in the same class that Stalin and Hitler were when they were both following the policy of stateism and abusing each other for it. For the socialization of transportation is stateism because it increases the amount of transportation provided by government investment and tends to reduce and ultimately destroy that provided by private investment and private enterprise. Therefore, the so-called "conservatives" in this country who denounce Stalinism and Hitlerism abroad can make themselves as consistent as Stalin and Hitler have made

themselves only either by desisting from promoting stateism here or by desisting from denouncing and pretendedly opposing it here as well as abroad.

The outbreak of a new war in Europe makes it quite unlikely that "normal" business conditions are going soon to return in this country—at least in the sense of "normal" as persons of middle age or more view that term. "Normal," in the days when peace rather than war was the dominant characteristic of western civilization, meant a constantly increasing standard of living (with only temporary set-backs) and expanding markets due to *private enterprise*. What happened to this happy state of affairs and led to its now almost-complete ruin? Just one thing, whether in Germany, or Russia, or elsewhere in Europe—or in America. That one thing was *increase of power in the hands of politicians*—and, once political power had become great, the consequent struggle of business men, of labor leaders, of soldier-gangsters and others to capture the political machinery and use it against the rest of society to their own selfish advantage. **What happened, in short, was that people got tired of acquiring wealth by producing it and decided, instead, to get it by taking it away from other people.**

A Handy Way to Get Rich—if

This is a handy way for one group of men—business men, for example—to get rich, provided they have no competitors. But they invariably do have competitors—and, whoever sets the example—even if it is business men—there are soon so many people engaged in trying to take wealth away from others that less and less wealth is produced. And people who do produce find it so hard to hang on to what they produce that they lose interest in producing. That is, they lose interest in producing things ordinarily considered wealth—but they do go on making instruments which can be used to defend their goods or to blast away the property of others.

Stalin and Hitler are merely the gangster type that come to the top when a free-for-all-grab finally becomes the order of the day. In an earlier time, when people were bent on advancing themselves mainly by productive labor, such men would have found themselves in the hoosegow, or perhaps on the gallows, instead of the honored leaders of millions. The donation of power to politicians which has brought Europe to virtual ruin is the main characteristic also of life elsewhere in the world—even here in North America. We also are handing over more and more power to politicians—and consequently power to be used to take away other people's property is rapidly becoming the main bone of contention.

The New Theory—and Practice—in Transportation

Until 15 or 20 years ago if anybody in this country had some freight to move the theory was that he

would hire private enterprise to move it, and pay a fair price for the service. But that is not the theory of the all-powerful state—and it is ceasing to be either the theory or practice in this country. Under the modern theory the state enters business either in

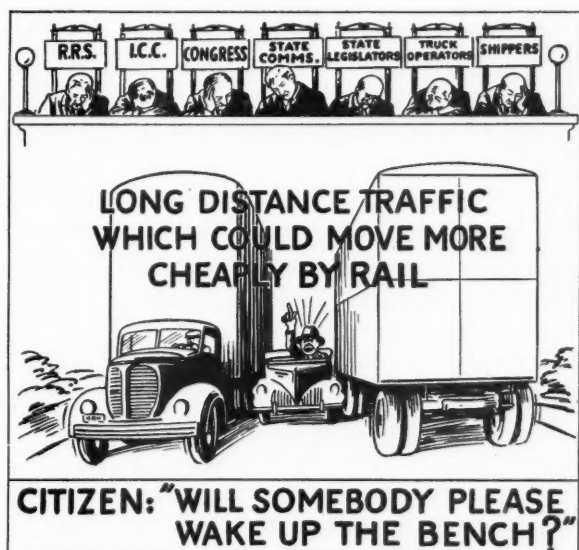
competition with its citizens or by directly confiscating their property—and in this country the state already provides transportation facilities by water and highway at less than cost to business interests with great political influence, absolutely regardless of the effects, not

What Will the Traffic Bear?—36

There are three influences operating to prevent the railroads from making the adjustments in their rate structure which common sense shows would bring back to them a large part of the traffic they have lost to trucks. These influences are—

1. Railroads which have profitable relations with forwarding and trucking operations, which have cost them good money to build up and which they will not throw out just because somebody else thinks it would be noble of them to do so.

2. Shippers who are "getting away with murder" under the present set-up and who use the "club"



on the railroads to prevent any change in conditions.

3. The trucking industry, especially the large long-distance operators, who are largely kept in business by the present rate structure and hence will go to any lengths of pressure and finagling to prevent its being changed.

The two preceding articles in this series have dealt with railroad opposition to rate structure changes (Article No. 34) and devotion of some shippers to the *status quo* (Article No. 35). So this leaves the truckers' attitude for examination—

A clear exposition of their position will be found in the September 18 and October 4 amendments to their Fourteenth and Fifteenth petitions and their Twenty-sixth petition filed September 25 in Central States Motor Freight Bureau, Inc., M. C. 21.

These petitions contain a total of 352 pages of rate changes (mostly reductions) made primarily to meet carload rail rates. **They contend in these**

petitions that, regardless of their operating costs, nevertheless it is their privilege to make 10-ton minimum back-haul rates to meet rail carload rates for much higher minimums.

It is obvious to any fair-minded, experienced traffic man that the more complete store-door service, loading and unloading, and lower minimums which are offered by the trucks give them an unfair advantage over the railroads which is not reflected in their rate per 100 lb. What are the railroads doing to stop it?

Just take a specific example of some of the trucks' rate proposals:

They want a 26-cent, 10-ton minimum rate on canned goods for a 376-mile haul from Chicago to Akron which, when we consider their average empty movement, **gives them only 10.35 cents per truck-mile** to meet a 26-cent, 18-ton minimum, rail rate. The buyer has to take only 10 tons by truck. He has no drayage to pay. The truck loads it and unloads it for him. Is this fair competition?

Based upon average truck-mile costs in Central territory, it costs the truck 19.73 cents per truck-mile to make this trip, and yet they are seeking a rate which will yield them only 10.35 cents per mile.

Based upon average rail unit costs, the railroads' 26-cent rate returns them double the expense which they incur in performing the service, including overhead, but omitting return on investment. In other words, **the railroad is clearly the more economical agency for the movement of this traffic and, in the public interest, is entitled to the business.** But the rate structure is being worked in such a way as to deprive the economical agency of the business and divert it to the high-cost competitor. This is not only contrary to the interest of the railroads—it is also contrary to the public interest, tending as it does to diminish national wealth and income.

If the railroads are unable to come to grips with this situation or (which amounts to the same thing) are fearful of reprisals if they do so—that still does not absolve the Interstate Commerce Commission, the state commissions, Congress and the state legislatures. They are supposedly the watch-dogs of the public interest. Yet right here before their eyes there is flourishing a purely artificial set-up which is depriving the American people of the services of the more economical transportation agency, fostering the wasteful duplication of transportation facilities and resulting in an indefensible cluttering up of the highways with long-distance commercial traffic which **in the public interest** ought to be moving by rail.

only on those who have invested their capital in railways, but also on business interests with less political influence or that for any reason are mainly or solely dependent on railway service.

Adolf Hitler is a symbol 4,000 miles away; but the system for which he stands (that of using political power to take away the property of some and donate it to others) is a lusty growth right here at home, and is best exemplified here in the transportation industry, although it is being extended to other industries. It is a system which takes away from people the incentive to produce more wealth. It is a system which deprives them of their sense of security and acts as a deterrent to the normal growth of markets for increasing agricultural and industrial production. It is a system which the more it grows the more it will make the United States a poorer nation while increasing the acrimony with which people fight over the division of our dwindling wealth.

Hitler and his coterie are a menace to the peaceful and democratic nations of Europe; they are not, so far at any rate, such a menace to the people of the United States. But Hitlerism—the absolute and do-it-all state—is flourishing right here in our midst; and will continue to corrupt and ruin our people until it is uprooted, whether Adolf Hitler, the individual, continues to thrive or not. So, as with charity, the war on the absolute state should begin at home; and its leaders should include those so-called “conservatives” who are now in their own supposed selfish interest working so constantly—and so hypocritically—to increase and finally completely establish the stateism of Stalin and Hitler in transportation in the United States.

Penny Wise — Pound Foolish

A collection of the hundreds of motor cars used for returning car-riders to the hump in gravity yards would be a sorry spectacle. Traditionally such cars, while complying with all the safety rules, are otherwise decrepit and outmoded, and breakdowns are frequent. It is amazing to find, in an otherwise modern yard, such archaic, slow and uncertain motor cars chugging up and down their track (when they are in shape to run at all). Such cars have no place in a modern yard.

Modern efficient motor cars for car-riders present a better appearance, but there is a thoroughly sound economic reason for their use as well. It costs approximately \$90 per hour to operate one of the largest gravity yards in the country. This yard was formerly equipped with motor cars which, even at their best, could not attain a speed of more than 8 to 9 miles an hour on the upgrade when loaded. In addition, frequent breakdowns caused more delays.

A survey over a period of a month showed that these cars slowed up the yard more than 45 min. daily be-

cause of one delay or another. In other words, inefficient motor cars were costing nearly \$70 a day, for in a busy yard time is certainly money. Many yards throughout the country will show comparable losses from the same cause. It is pertinent to note that the difficulty in the yard referred to above has been corrected through the purchase of new cars, and issuing instructions that they be inspected periodically and as thoroughly as any yard locomotive.

The Gains in Railroad Traffic

With the sudden pick-up in railroad freight traffic in September, interest is naturally aroused as to the distribution, both industrial and geographic, of these business gains.

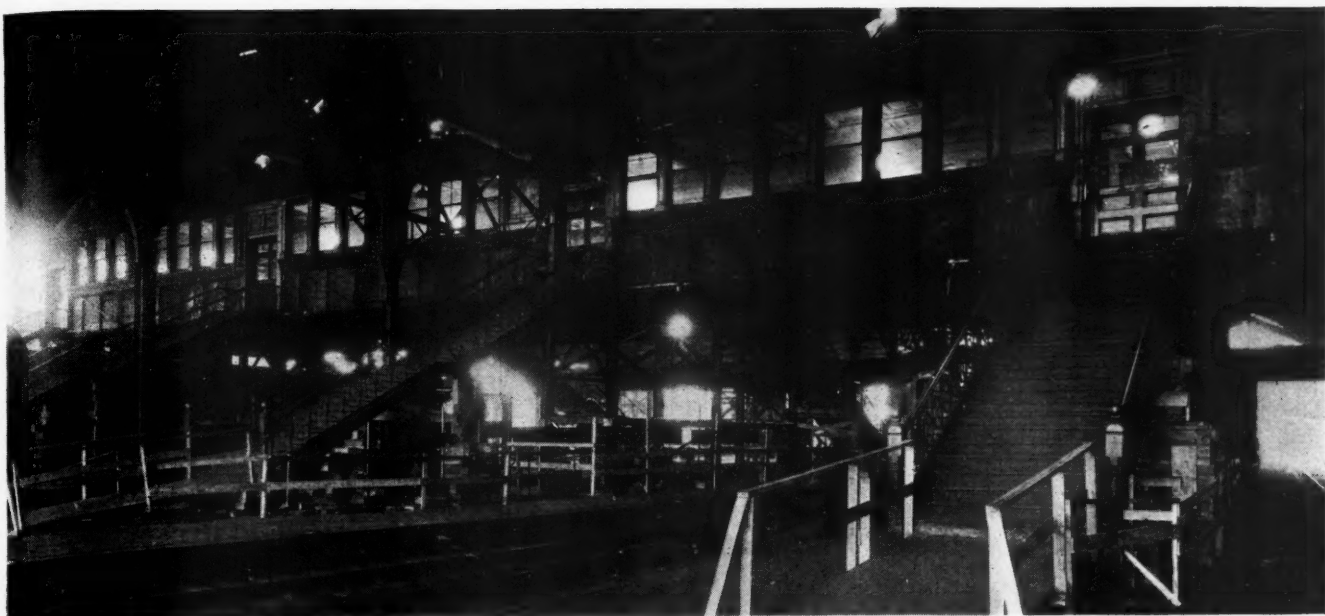
Railroad traffic, as measured by freight carloadings, showed an increase of 9 per cent above last year in the first eight months of 1939. Then, in September, carloadings jumped to a level 19 per cent higher than that of a year ago. In actual figures, the gain amounted to 600,847 cars.

Dealing with these actual figures and comparing September, 1939, with the same month last year, there were gains of 222,105 cars in miscellaneous traffic; of 141,813 cars in ore traffic; of 140,215 cars in coal traffic; of 29,183 cars in grain and grain products; of 22,011 cars in merchandise; of 19,249 cars in forest products; of 16,170 cars in coke; and of 10,101 cars in livestock traffic. The large increases in coal and ore carloadings may well indicate the long-deferred revival of our heavy industries.

Relatively, the order of priority in improvement is somewhat changed. On this basis, the following rates of increase in revenue carloadings were shown in September, as compared with a year ago: ore, 105 per cent; coke, 57 per cent; coal, 23 per cent; miscellaneous, 17 per cent; grain and grain products, 15 per cent; livestock and forest products tied at 13 per cent; and merchandise, 3 per cent.

Geographically, on an absolute basis, the greatest increase in carloadings—167,014 cars—occurred in the Allegheny region. Next in order were increases of 146,914 cars in the Eastern region, of 136,744 cars in the Northwestern region; of 49,092 cars in the Pocahontas region; of 47,366 cars in the Central Western region; of 43,215 cars in the Southern region; and of 10,502 cars in the Southwestern region.

On a relative basis, the listings are again somewhat changed. The rates of increase in September, as compared with last year, amounted to 29 per cent in both the Northwestern and Allegheny regions; to 23 per cent in the Eastern region; to 20 per cent in the Pocahontas region; to 9 per cent in both the Central Western and Southern regions; and to 4 per cent in the Southwestern region.



View of the Passenger Bridge from the Platform Level Just After It Had Been Jacked Up

Raising Long Passenger Bridge Under Traffic No Easy Task

Pennsylvania devised interesting methods to carry out project at Harrisburg, Pa., made necessary by electrification

WHEN the Pennsylvania undertook the raising of a passenger bridge that extends across its station tracks at Harrisburg, Pa., to obtain the additional under-clearance needed for electrified operation, it found that it was confronted with no easy task. Because both walls of the bridge were framed around the lower chords of Fink trusses carrying the train shed, it was impracticable to raise the bridge independently of the shed. Moreover, because of differences in existing clearances under the bridge, it was necessary to raise one end more than the other, thus imposing a delicate problem in co-ordination. But by disconnecting a section of the train shed over the bridge and raising it with the bridge, and by utilizing an ingenious system of graduated scales or gages at the lifting jacks, the raising of the bridge was accomplished successfully without complications and without taking it out of service. Indeed it is even questionable if many of the patrons using the bridge during the lifting operation were aware of what was taking place.

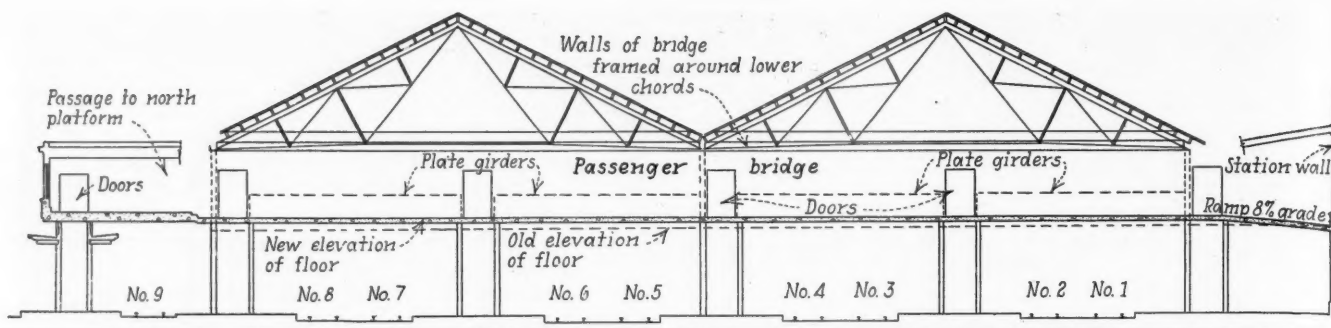
The passenger station layout at Harrisburg includes eight through tracks which are spanned by a train shed comprising two lines of Fink trusses, placed transversely, each line of which spans four tracks (see drawing). These trusses have 90-ft. spans and are placed on 20-ft. centers. They are supported on three lines of steel columns, the center line of which takes the reaction from the trusses on both sides. The top chords of the trusses are of timber construction, consisting in each case of two 4½-in. by 16-in. pieces, while the bottom chords

are of pin-connected eye-bars. Diagonal members in tension are also of eye-bars or rods, while those subject to compression consist of channels. The roof purlins consist of 3-in. by 11-in. timber pieces, spaced 2 ft. 6 in. apart. These members carry 1½-in. sheathing which is covered with roll roofing.

Bridge Spans Eight Tracks

The passenger station, in which the main waiting room is situated one story above the track level, is located on the south side of the tracks. At the waiting room level a passenger bridge or concourse extends across the eight tracks and five platforms, with stairways extending down to each platform from both sides of the bridge. This facility, the roof of which is in the plane of the bottom chords of the train shed trusses, is 40 ft. wide and occupies two bays of the train shed.

The principal supporting members of the passenger bridge consist of three lines of plate girders, one along each side of the bridge and the third along the center line, the ends of which frame into columns on each passenger platform. Since, to conserve headroom, this girder construction is of the through type, it was necessary to provide separate supporting columns for the ends of adjacent girders in order to allow space between the ends of the girders for doors opening onto the stairways. Thus there are two rows of supporting columns, spaced seven feet apart, on each platform. At the ends of the train shed trusses, the supporting columns for



Diagrammatic Section Through the West Side of the Passenger Bridge

these trusses also carry the passenger bridge girders; elsewhere columns for carrying the bridge were provided specially for that purpose. All columns are of the built-up type, consisting in each case of a web plate and four flange angles.

In the side walls of the passenger bridge, wooden framing on top of the girders provides support for window frames, embodying double-hung sash, which extend the full length of the bridge on both sides. On both the exterior and the interior this wooden framing is covered with metal paneling. At the tops of the side walls they are framed around the bottom chords of the Fink trusses. The ceiling of the bridge is of metal paneling supported by timber rafters which also carry 1-in. roof sheathing and a four-ply roof, while the floor, which has an asphalt-wearing surface, is of steel-trough construction filled with concrete. Extending the full length of the passenger bridge are four lines of benches for the use of patrons, one against each wall and the other two placed back-to-back along the center line. At the north end of the passenger bridge a short flight of ascending steps, involving six risers, provides access to a short foot bridge over track No. 9, from which descending steps lead to the northern-most island platform. From this platform an undergrade pedestrian tunnel leads to the Reading company's station which is directly across the tracks from the Pennsylvania station.

Greater Clearances Needed

When the Pennsylvania undertook the electrification of its trackage through the Harrisburg station area in connection with the extension of its electrified territory

westward from Paoli, Pa., to Harrisburg, it found that existing clearances under the passenger bridge were inadequate. Whereas a clearance above the top of rail of 17 ft. 7 in. was necessary to give a catenary clearance of 17 ft., the existing clearances at this bridge varied from a minimum of 15 ft. 5½ in. at track No. 8 (the most northerly track under the shed) to a maximum of 16 ft. ¾ in. at track No. 4. The variation in clearances was due partly to the fact that the south end of the bridge was about 4 in. higher than the other end, and in some measure was attributable to differences in the elevation of the tracks.

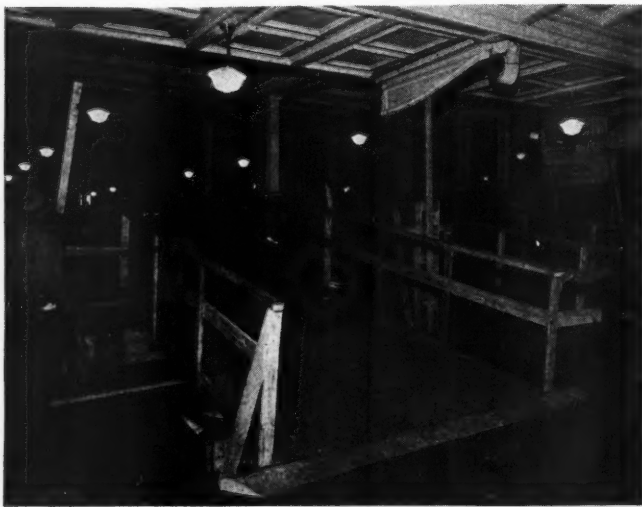
To obtain the required clearance at the north end of the bridge a raise of 27½ in. was necessary at that end, but at the south end a raise of 20 in. was all that was needed. While it would have been feasible to raise the entire bridge 27½ in., thereby simplifying the task, it was desired to keep the raise at the south end to a minimum because of the desirability of holding down the height of the ramp from the waiting room level. For this reason the bridge was raised only 20 in. at the south end. Hence, after the completion of the work, the south end, which previously had been the higher by 4 in., was 2½ in. lower than the other end.

Two Possibilities

In considering the problem of raising the bridge, the railroad had a choice of two general plans. Because of the fact that the upper parts of the walls were framed around the lower chords of the Fink trusses it was obviously impracticable to raise the bridge as a whole independently of the trusses. In view of this situation the two possibilities involved either the raising of the floor alone, allowing the ceiling to remain at the existing elevation, or the raising of the bridge and a section of the train shed as a unit. Because the first of these plans would have entailed the complete reconstruction of the walls of the bridge at a prohibitive cost it was discarded in favor of the second plan.

Under this scheme it was necessary, of course, to raise two bays, including three trusses, in each of the two parts of the train shed. This required the cutting of the roof and the roof purlins in adjoining bays along a line adjacent to the top chords of the outside trusses to be raised and, therefore, entailed the necessity of providing means for supporting the ends of the severed purlins at their original elevations during and after the raising operation. To accomplish this end an ingenious method was devised for suspending the purlins from the trusses that were raised.

This involved the use of timber needle or cantilever beams which were placed at the panel points on the roof of that portion of the shed to be raised. These beams were anchored to the middle truss and were of such length that their ends protruded somewhat beyond the



Looking North Into the Passenger Bridge During the Jacking Operation

outside trusses. Through each overhanging end of these beams was placed a long bolt, the lower end of which was fastened to a false rafter placed under the free ends of the purlins in the adjacent bay. Each bolt was threaded at its upper end and carried a nut which was turned down to a contact with the top surface of the cantilever beam, where it was in a position to transmit the load from the bolt to the cantilever. As the passenger bridge and trusses were raised in the manner described below, the nuts on these bolts were eased off at approximately the same rate at which the raising took place, thereby permitting the trusses to rise without affecting the elevation of the roofs over the adjacent bays. When the raise had been completed permanent hangers were installed at the panel points and the vertical openings in the roof at each side of the raised portion were closed with sheathing.

Columns Were Jacked Up

The raising of the bridge and the section of the train shed was accomplished by jacking up the columns and then inserting stub columns under the raised ends. For the jacking operation two 50-ton jacks were used at each column. These jacks were placed under needle beams consisting of pairs of I-beams or channels, depending on the load to be carried. The two members comprising these beams were bolted to the flange angles of the column, one on each side, and were provided with the necessary diaphragms and bearing plates over the jacks, which were located a maximum distance of 3 ft. 6 in. from the center lines of the columns.

In preparation for the jacking operation, a portion of the brick platform around each column was removed to expose the base of the column and to permit the installation of timber grillages for supporting the jacks, the tops of these grillages being level with the surface of the platform. Following the completion of the jacking set-up the anchor bolt connections at the base of each column were loosened and, when the jacking operation had been completed, these bolts were burned off at a point $\frac{3}{4}$ in. above the top of the existing masonry. The column stubs, consisting of H-sections fitted with the necessary top and base plates, were then inserted under the lower ends of the existing columns so that holes in

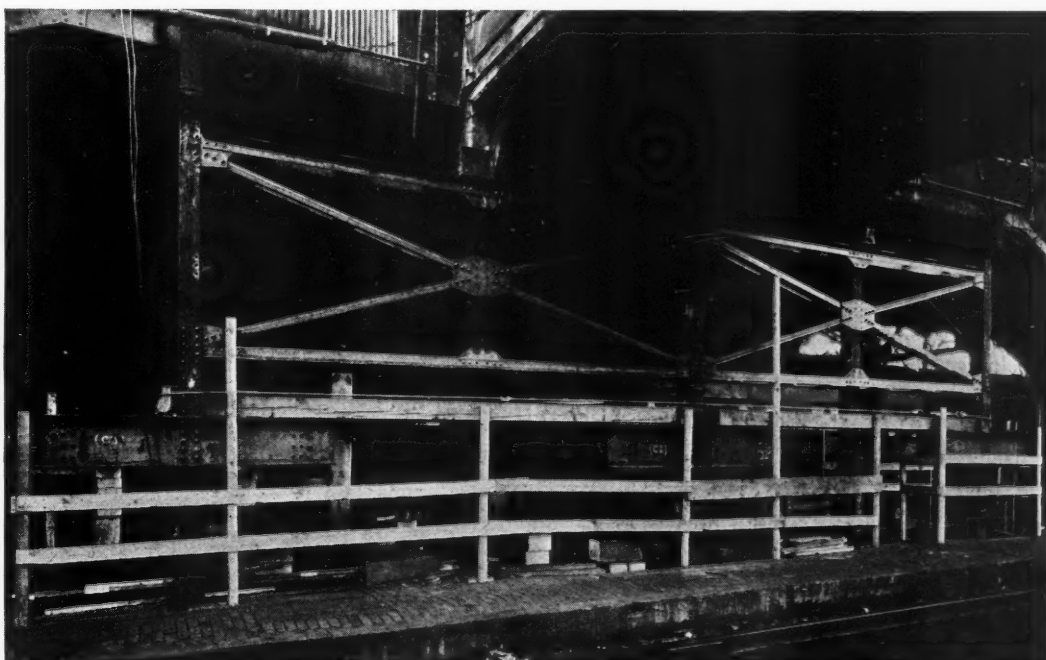


The Roof of the Train Shed After the Jacking Had Been Completed. The Upright Pieces Near Each Hanger Bolt Are the Gages

the base plates engaged the existing anchor bolts. Because of the presence of the projecting anchor bolts it was necessary to make the column stubs 1 in. shorter than the required length and, to provide the additional length necessary, a 1-in. shim plate was driven between the base plate of each existing column and the cap plate of the stub column after the latter had been inserted.

Each shim plate is held in place by two anchor bolts, extending through both the upper and lower plates, and is also fillet-welded to these plates. At the lower end of each stub column the base plate was welded to the existing anchor bolts. As the last step, the lower end of each column was encased in concrete to a point somewhat above the upper end of the stub column. The columns under the stairways at the various platforms were jacked up and stub columns inserted in substantially the same manner as the large columns. Because of the lighter loads, 20-ton jacks were sufficient at these locations.

For jacking up the bridge the varying amounts re-



Looking South at the North End of the Bridge Just After the Jacking Had Been Completed

quired at the different columns, use was made of a system of vertical gages or scales, one of which was placed at each jack as well as at each hanger bolt on the roof. The purpose of these gages was to effect co-ordination of the lifting operations at the different jacks and hanger bolts so that the difference in the rate at which the bridge was raised varied uniformly throughout its length. This scheme made it possible to raise the bridge varying amounts at the different lines of columns without imposing stresses that would have caused cracking of the concrete floor or breakage of the window glass.

In all the gages the amount of the raise was divided into 20 divisions, the length of the divisions depending on the height of the raise. For instance, the scales that were used at the station end of the bridge, where the raise was 20 in., were each divided into twenty 1-in. divisions. At the opposite end of the bridge, where the raise was $27\frac{1}{2}$ in., the twenty divisions in the gages were each $27.5/20$ in., or 1.38 in., long. At intermediate columns the size of the divisions on the gages increased at a uniform rate from south to north, while divisions on the gages used at the hanger bolts were similarly proportioned.

The Jacking Operation

When the actual raise was made, two men were stationed at each of the lifting jacks and one man at each of the hanger bolts, requiring a total of about 150 men. When all advance preparations had been completed a bell was sounded to indicate the start of the operations and on this signal the jacking at each column was started and continued until the column had been raised two divisions on the gage, as indicated by a pointer attached to the column. On the same signal the men stationed at the hanger bolts began to turn off the nuts on these bolts, continuing until the effective length of each hanger bolt had been increased by an amount equal to two divisions on the gage that was placed at each of these bolts. If a difficulty was encountered at any of the jacks a stop signal was sounded on the bell to indicate that all operations were to be stopped. When each lifting jack or hanger bolt reached the end of its movement over the two divisions on the gage, operations were stopped until the proceed signal was again sounded. Since the jacks used had lifts of only 14-in., it was necessary at about midway of the total lift to add additional blocking to the grillages under the jacks. At all times during the jacking operation the raise was followed up with blocking and wedges.

In this manner the actual operation of lifting the bridge was accomplished in a total elapsed time of 2 hr. 20 min. and with the entire absence of complications of any description. During this time the bridge was continued in service and access to it was provided by means of floating timber ramps at the waiting room end and at the lower ends of the stairways. After the bridge had been raised, a permanent ramp was installed at the south end and the necessary additional risers were placed at the lower ends of the stairways.

Conditions at North End

In raising the bridge, consideration had to be given to conditions imposed at the north end by the presence of the passage or footbridge over track No. 9, which was not raised. This passage is 20 ft. wide and is on the center line of the passenger bridge. The stair horses of the six risers leading up to the passage from the passenger bridge level frame into a 12-in. horizontal channel which is supported by two H-columns in the plane of the out-

side line of columns carrying the train shed. The three train shed columns underneath the end of the passenger bridge and the two columns supporting the end of the passage are inter-connected by means of cross-bracing involving both diagonal and horizontal members.

Since it was evident that this cross-bracing, if left in place during the jacking operation, would foul the supporting members for the passage it was removed prior to the jacking operation and replaced with similar bracing at a lower level. So that the new bracing would be in the proper position after the raise had been completed it was applied to the columns at a level that was below the original elevation a distance equal to the amount of the raise. Since the supporting columns for the passage were not involved in the raise, the new bracing was not connected to these columns until after the raise had been effected. After the raising of the passenger bridge had been completed two stair risers were sufficient to provide access to the passage.

Electrification of the tracks through the Harrisburg station area also involved the raising of a baggage bridge somewhat north of the passenger bridge but this proved to be a relatively simple task. This bridge is 15 ft. wide and extends across all tracks and platforms under the train shed, being served by an elevator at each platform. Like the passenger bridge it has a trough floor filled with concrete and is supported by plate girders that frame into the train shed columns and into other columns on intermediate platforms. Since this bridge had no connection with the train shed except at the columns it was raised as an independent unit, the process involving simply the loosening of the column connections and the making of new connections after the bridge had been raised. Coincident with the raising of the baggage bridge, the elevators serving that facility, which were of the hydraulically-operated type, were replaced with electrically-operated elevators.

With E. B. Temple, chief engineer of the Eastern region of the Pennsylvania (now retired), exercising general supervision over the project, the passenger and baggage bridges at Harrisburg were raised under the direction of A. R. Wilson, engineer of bridges, assisted by F. W. Heckel, Jr., assistant engineer at Harrisburg, and L. A. Miller, office engineer in Mr. Wilson's office. The work was done under contract by the Arundel Corporation, Baltimore, Md.

* * *



The Seaboard Air Line Remodeled Its Old Passenger Station at Sarasota, Fla., in 1937 to Produce This Attractive Modernistic Structure

A Passenger Salesman Gets a Load Off His Chest

Believes preponderant opinion favors 2-cent rate—Hodgepodge tariffs confuse ticket sellers and lower their selling power

The name of the writer of this article cannot be given. We are, however, authorized to reveal that he occupies a responsible position in a railroad passenger department. In affording him a means by which he may present his thoughts to the railroad industry, we are not thereby subscribing to his position.

But railroad problems are sufficiently serious so that the views of every intelligent and experienced railroad man who has a constructive attitude toward them are needed, and deserve a hearing, whether such thoughts are on the popular side or the contrary.

To provide an avenue for bringing the full force of the intelligence in the railroad business to bear upon its problems (under the cloak of anonymity, where such protection advances the cause of honest and frank expression) is a peculiar service which an independent business paper, such as the *Railway Age*, affords to its industry; thereby helping to defend it from the danger of a paralyzing orthodoxy in an era when rapid adaptation to changing conditions is the price of survival.

So, we believe, all persons who are interested in the problems of the passenger department will read this article with interest, whether they find that they agree with the writer or not.

—EDITOR.

"AS it now stands, the I. C. C. has placed a definite limitation on all fares in excess of 2 cents per mile in coaches. Any fares in excess thereof expire January 23, 1940. It is my understanding that the eastern roads intend to appear in Washington shortly to ask the I. C. C. to remove this limitation and permit them a longer period of experimentation with the new round-trip coach fares.

New Rates Bring More Prosperity to Buses Than Rails

"Since the fares were increased in 1938, bus lines have enjoyed prosperity. Have the railroads? Not by comparison. I think it can be safely said that if you scratch a passenger man you will find a low-fare man. You will find Eastern passenger men in general liked the 2-cent one-way coach fare. They speak privately of principles that they may not admit publicly. (Are financial officers and executives determining the policy? If not, then they are not getting frank advice from their passenger subordinates. Our superiors tell us one thing—then it seems as if our executives vote another way.)

"Admittedly, the new decreasing-scale, round-trip fares

make some attractive long-haul rates. However, the buses were able to keep long-haul differentials and increase their net revenue. Average rail passenger haul is short and revenue from rates results from the working of averages and not the extreme long-hauls. Round-trip fares for distances upward of 500 miles may be competitive and beneficial; not so for your 200 and 300 mile hauls. It is significant that only a fraction of coach passengers move at the round-trip fares. Prevailingly, the basic merchandise is the one-way ticket.

"Coach traffic is likely to be unbalanced and, in selling, the round-trip ticket does not fit into the characteristic of unbalanced traffic. It is not doing us much good to give up the patronage of three one-way riders and attract one round-trip passenger. There is a place for a round-trip ticket, but it should be in the nature of an inducement to complete the transaction rather than as a subterfuge to defeat the basic rate.

"An outstanding reason for some decision at this time is the crying tariff situation. Agents and ticket sellers are up against a simply impossible state of tariffs. A year ago, Mr. Jeffers told the passenger traffic officers that they must do something. What they have done in the past year has made things twice as bad as Mr. Jeffers said they were. Even if we grant the soundness of the present fare structure in the East, the tariff situation is preventing sales. It is my belief that the fare structure itself prevents effective advertising. Certainly, the tariff situation interferes with good ticket-window salesmanship because we have so many classes of fares. The clerks in our store are handicapped in selling. Therefore, we should have permanency in our fare structures some time so that the tariff compilation can be completed and we can quote prices quickly.

Place Authority and Responsibility in Same Hands

"At the present time, our tariffs are a hodgepodge of memoranda, short-cuts, and temporary supplements. The passenger fare structure has been a mess from a tariff standpoint since in the mid-twenties we began to adopt subterfuges to defeat the 3.6 cent basic fare. The Western Lines then experimented, then the Southern, and finally the I. C. C. ordered the Eastern Lines to reduce. Complication has been heaped on complication and short-cut on short-cut. Just go talk to a ticket agent!

"The \$90 and \$135 Grand Circle Fare was a bargain only to the extent that it permitted greater circuitry. With rather moderate advertising, it was a complete success. Granted, it was a favorable rate, but not too great a discount. However, it was a simple, direct and intelligible fare. It was a publicity success, it was easy to advertise and it was popular. Much created traffic resulted from the merchandising. Isn't there any lesson that can be drawn from this success?

"Is it to be 'Sell America in 1940?' If so, Mr. Executive, place the authority with the responsibility. The passenger traffic men have the answer—or else!"

Baldwin Addresses Mechanical Associations

Speaks on training and coaching supervision at the opening sessions of the four supervisors' associations

"BELIEVE in your railroad" was the message of L. W. Baldwin, chief executive officer, Missouri Pacific, speaking at the joint opening session of the annual conventions of the Railway Fuel and Traveling Engineers' Association, the Car Department Officers' Association, the Master Boiler Makers' Association and the Locomotive Maintenance Officers' Association, which were held at the Hotel Sherman, Chicago, on October 17, 18 and 19. Frank P. Roesch, vice-president, Standard Stoker Company, Chicago, and chairman of the Committee on Coordination of Conventions, who presided at the joint session, reviewed the efforts over the past 20 years of the committee of which he is chairman to effect some coordination in the meetings of the various mechanical supervisors' associations, leading up to the present plan of holding conventions at one time and place, with a single exhibit serving all interests when an exhibit is held. In reporting that the work of the original committee had been completed and suggesting that it be discharged, Mr. Roesch recommended that a similar committee be continued to serve as a means of maintaining the present type of coordination.

Mr. Baldwin's Address

The principal address of the joint session was delivered by Mr. Baldwin, under the title "Training and Coaching Supervision." Mr. Baldwin spoke as follows:

Training and Coaching Supervision is a broad and most important subject and one deserving of the earnest study and thought of every railroad man interested in the continued advancement and success of the railway industry. I won't go so far as to say that the proper training of supervision is the most important factor in the success of railway operations, but I will say that it is one of the most important ones.

I am not a military man, nor even one with militaristic leanings, but I do know that the success of an army depends upon the quality of its leadership, and by that I mean not the generals so much as the captains, the lieutenants, the sergeants and the corporals, for it is up to them to keep up the morale, the fighting spirit and the efficiency of the rank and file. And it is the rank and file that wins wars, and, in the last analysis, determines the success or failure of any industry. Hence it is perfectly clear that a railroad, in order to attain top efficiency, must have men well equipped to direct properly the efforts of its rank and file—those who actually perform the proverbial thousand and one tasks that are necessary to keep the wheels turning, and to deliver the kind of service for which our American rail system is so justly famed.

The finest railway plant in the world would be of little value to those who invested in it or to the public it was built to serve if it were not manned by competent employees. The greater the competence of the men who operate it, the greater its value to those who have in-

vested in it, and to the public. Now it is equally true and equally obvious that competence doesn't just happen. Men become competent through experience and through education. To my mind the old saying that experience is the best teacher borders on being a half-truth because it seems to have left the impression in the minds of many that experience is the *only* teacher, and that, of course, is not true.

There was a time when everyone who advanced did so because he had been a good pupil in the school of experience. Today there is no thoroughly satisfactory short cut that can be followed exclusively, and experience still is a necessary adjunct to success, but training and proper coaching have made the way not only easier but much more efficient. Today, thanks to training courses, to able teachers, constructive thinking and cooperative direction, it is possible for a man to become proficient in much less time than was required for him to obtain the same degree of proficiency in the days when only those who had learned their trade the hard way were considered worthy of leadership.

From that date a little more than a hundred years ago, when the first train laboriously chugged its way along a track, to the amazement of all—including probably its builders and sponsors—the history of railroading has been one of progress. There is not a man in this room who, if he will think back to the days when his name first went on a railroad payroll, cannot recall a steady procession of improvements and betterments. We who have devoted our lives to the railway industry find a strong fascination in our calling. We wouldn't be happy doing anything else. "Railroading gets in one's blood," is a rather often-heard expression. I think that is true, but I think it gets in our blood because in most of us there is a natural desire to have a part in something that is vital, something that spells progress and service. We are proud to be known as railroaders because no industry has a finer, more inspiring and more impressive record of achievement, and this, too, in spite of the fact that in recent years, when it has achieved its greatest advancement, it has been confronted with its greatest difficulties.

Railroading Has Attracted Men of Vision

I think it can truthfully be said that the railroad industry has made its enviable record because it has attracted to it men with rare qualities of leadership, men of vision, men with a pride in their craft, and, above all else, men richly imbued with a zeal for service. It is men like these who constitute the real backbone of the railroad industry. From men like these have been chosen the captains, the lieutenants, the sergeants and the corporals of the great army of railroaders. They have been chosen as leaders because they possess certain qualities that enabled them to assume and to discharge responsibilities properly, because they knew their busi-

ness and chiefly, in my opinion, because they had proved they had open minds.

No man can be a good leader of men who believes, or who even acts as if he believes that he knows all there is to be known about his task. Railroading is an industry of movement. Trains move today at a speed and with a dependability undreamed of a few decades ago. This was made possible by the combined efforts of countless men who continually sought new and better ways of doing their work. If railroaders, and particularly supervisors, had closed minds; if their eyes and ears were not always open to suggestions, and if there did not burn in them a constant desire for improvement, why then ours would, indeed, be a dying industry.

But the railroad industry is as far from being that as daylight is from darkness. It has had and is having its full share of trials and tribulations. It has been hammered and hampered by antiquated rules and regulations. It has suffered and is suffering from unfair and subsidized competition. But serious as they have proved, they have never dampened and will not dampen the inherent enthusiasm and determination of railroad men to progress—to find new and better ways of getting their work done and to better the quality of their service to the public.

The entire history of our railroading shows that change is as inevitable as death and taxes. As I have said, ours is an industry of motion. Like individuals, institutions and organizations of all kinds, the railroads must go forward or slip backward. There is no such thing as a standstill railroad any more than there is an individual who, over a period of years, does not either become more efficient or less efficient.

This fact makes heavy the responsibilities of railroad officers and their assistants, the supervisors, for it is, of course, their duty to see that this progress is not only continued but accelerated. And that brings us face to face with the problem of training and coaching supervision. For one thing, I think it should be brought home to each supervisor that if he does not devote at least a part of his time to study, planning and thinking he cannot be very successful in his efforts to inspire his men to greater efficiency and greater loyalty.

Efficient Supervision of Work Not the Only Requisite

In this day when success is so utterly dependent upon efficiency it is quite clear that no supervisor can be content with merely seeing to it that his men turn out a specified amount of work. As I have said, tremendous forward strides have been taken in all branches of railroading but there are still vast improvements to be made, new ideas to be thought out, developed and perfected, new economies to be considered and adopted. No one has a monopoly on ideas and it is part of the supervisor's job to work with and to co-operate with his men so that they will be thinking along new and progressive lines.

This cannot be done except through the maintenance of proper relations between supervisors and the rank and file, and I think the supervisor who allows himself to lose touch with his men is overlooking a major requisite to his own advancement and is not getting the best possible results from them. Naturally this same observation applies with equal force to contacts between officers and their supervisors.

What we know as "good organization" depends upon the extent to which officers keep in close touch with their supervisors and upon the supervisors maintaining close personal relationships with their men. Good organization means a complete understanding by everyone

of what is to be accomplished, the manner in which it is to be accomplished and perfect co-ordination of both effort and knowledge.

The matter of proper co-ordination is a most important one and should, I think, be emphasized in all coaching of supervisors. A supervisor may be outstanding in the handling of his men, he may get from them the best possible co-operation and produce satisfactory results, keep his costs down and his records in perfect shape, and do all of the other things that are expected of him, but still be a failure as a supervisor if he loses sight of the organization as a whole and regards the operations of his force as something separate and apart from other forces.

The modern railroad is the most perfect example of big scale co-operation ever developed. Any individual who forgets for a moment the absolute need for and value of co-operation is not properly filling his niche, or living up to the traditions of our industry. Co-operation, however, is dependent upon understanding and the responsibility for bringing about a proper understanding on the part of the supervisors, and developing and maintaining in them a proper attitude toward their duties and their responsibilities calls for careful and painstaking coaching. In my opinion, this cannot be done by writing out instructions, by issuance of bulletins or in any way except by personal contact.

Coaching of supervisors should not be confined entirely to matters relating directly to better shop practices, better co-operation between forces or other phases of the actual work. It should also include efforts to bring about a better and more thorough understanding of the railroad situation and a greater sense of responsibility on the part of all employees to do all they can for the benefit of the industry in general, and for their own railroad in particular.

It is inconceivable that a man who works for a railroad and who knows that railroad employment and railway revenue have been constantly declining could maintain an attitude of indifference concerning the decrease in railway business, or of the causes that are responsible. And I firmly believe that if there is an employee on any railroad who seemingly is indifferent to the situation, it is because someone in an official or a supervisory capacity has failed to take the time and trouble to acquaint him thoroughly and definitely with the facts.

An aroused and active army of railway employees, standing shoulder to shoulder, and fighting earnestly and sincerely for legislation that would eliminate handicaps against which the railroads are suffering could and would exert a tremendous influence for good. Seeing to it that employees are properly advised and encouraged in such efforts seems to me to be a broad and important avenue for constructive coaching. Carrying on public relations campaign in the shops or, in other words, selling the railroad to all working in the shops that they may, in turn know as much of their railroad is, I realize, far afield from the old days, but we have left those behind us. We are living in a new day, a day of changes and progress and everyone must keep in step. As evidence of this one must only think back to the time before such ideas as educational training courses for apprentices was ever heard of and before training courses for supervisors had come into existence. Both have proved their value on the Missouri Pacific.

A large number of our supervisors are voluntary students in courses made possible to them; likewise apprentices. Learning from books about shop practices, about how to handle men along with work—the practical side—produces splendid results and it is not theoretical but most workable, as results have proved it

helpful to the individual, to the shop and to the railroad; just as ever-increasing efficiency of America's railways has proved that we can find better ways of doing things if we but look for them. Again, co-operative working, looking through the eyes of the fellow workman—those working for them—as well as his own makes it possible for supervision to find better methods to do their work.

It is a big task, and an important one, for those in charge of the supervisors to encourage and urge continued looking to what some may call "cutting the head in"; progress has been made in this direction. It must have been if one but looks at the glorious, inspiring record of our achievement. Greater success lies ahead of us; no one who knows railroad men can doubt that.

If I have one message that I would like to leave with you today it is that you know enough about your work, about your railroad to believe in it and, in turn, sell it to your friends, to the public, and constantly insist on a fair measure of opportunity for your industry.

S. A. E. Chicago Section Transportation Meeting

THE Chicago section of the Society of Automotive Engineers, in conjunction with the truck, bus and rail car activity sponsored by this society, devoted its entire attention during an all-day meeting on October 6 at the Blackstone Hotel, Chicago, to the subject of rail transportation. Edward A. Sipp, Pyle-National Company, Chicago, served as general chairman of the meeting and the morning session, attended by about 60 representatives of the railway and the automotive industries, was presided over by the chairman of technical sessions, A. R. Walker, electrical engineer of equipment, Illinois Central. The first speaker was Peter Parke, chief engineer, Pullman Company, who presented the subject "Railway Passenger Cars in High-Speed Service." This paper gave a clear-cut and impressive picture of the trend in passenger car design to meet modern requirements and, following some introductory notes, discussed car types and materials and special passenger car features, such as trucks, brakes, air-conditioning, light and heat. The paper was illustrated with lantern slides, and a talking moving picture showed in considerable detail, various steps in the building of a lightweight, welded, low-alloy, high-tensile steel car at the Pullman plant of the Pullman-Standard Car Manufacturing Company.

The second paper at the morning session was presented by Colonel E. J. W. Ragsdale, chief engineer, rail car division, Edward G. Budd Manufacturing Company, on the subject "The Inside Story of a Weld." Colonel Ragsdale's paper also was illustrated with lantern slides which served to clarify his more-or-less technical description of what actually happens when various types of welds are made, including the "Shotweld" form of spot welding which is designed to be controlled so as to prevent harmful disturbance of the properties of the metal in the weld or in the material surrounding it.

In lieu of an afternoon session, the members participated in an inspection trip to the coach yards of the Chicago & North Western, where arrangements were made for them to inspect the new Four Hundred train equipment of the Chicago & North Western, the City of Denver and the City of Los Angeles.

Following a dinner at the Blackstone Hotel, the evening session was presided over by toastmaster Ernest

Kuehn, mechanical manager, Electro-Motive Corporation, La Grange, Ill., and some appropriate remarks were made by the honorary guest, C. W. Spicer, past president of the Society of Automotive Engineers. The principal speaker at the evening session was Carl R. Gray, Jr., executive vice-president, Chicago, St. Paul, Minneapolis & Omaha, who presented the subject "Modern Streamlined Railroad." Mr. Gray interpreted his subject to include something more than streamlined trains and referred to all phases of railroad operation which have been revised, reorganized and improved so as to cut out lost motion and give increased speed, efficiency and safety in all branches of railroad service. Mr. Gray traced the early development of railroads and compared early performances with present public demands, showing briefly how these demands are being met, not only with improved motive power and car equipment, but with modern tracks, signals, automatic train control and improved maintenance tools. He stressed the need for adequate personnel training, without which all of this tremendous investment in plant and equipment will be rendered largely ineffective.

In closing, Mr. Gray gave due credit to engineers representing both the railroads and the car builders for their constructive work in developing successful and attractive modern streamlined trains, but he said in effect that the major credit must go to those forward-looking railroad officers who have had the confidence and courage to authorize the large expenditures of money without which the construction of these trains would have been impossible.

New Products Alter Fire Hazards

CHANGES in fire hazards resulting from the introduction of new products is of far-reaching effect and of great importance in the protection of railroad property, according to A. R. Small, president of the Underwriters' Laboratories in an address at the first annual meeting of the Fire Protection and Insurance Section of the Association of American Railroads at Chicago on October 17 and 18. Among the products which he cited as reducing fire hazard was spun glass, particularly in the form of draperies and other fabrics used in the interior decoration of buildings. Plastics, he said, may either decrease or enhance opportunity for fire, depending upon the composition of the plastic, the manner in which it is used and the material with which it comes in contact. Another new product which, he said, would probably be especially effective in reducing fire hazard in electrical equipment, is a new compound of rubber, consisting of 30-40 per cent of rubber and 60 or 70 per cent of other materials. Infra-red heat, he continued, has greatly reduced the fire hazard in lacquer and varnish rooms because the heat is generated in the material to which it is applied and does not heat the vapors resulting from drying. Magnesium alloys, he said, have introduced a new hazard in shops because of the swift-burning properties of the magnesium.

The meeting at Chicago was the first of the section which this year succeeded the former Railway Fire Protection Association organized in 1913. While outlining the work of the new section, Chairman W. F. Hickey, superintendent of insurance of the New York, New Haven & Hartford, announced that, as in the past, section

(Continued on page 627)

Urges R.R.s to Drop Defeatism

C. E. Johnston tells Western club that rate revision would recapture long-haul freight—R.R. problems a challenge, not a death-blow

URGING railroad men to cast off the spirit of discouragement and defeatism which has afflicted many of them for the past decade, C. E. Johnston, chairman of the Western Association of Railway Executives, in an address before the Western Railway Club on October 16, contended that "we should firmly resolve that our industry shall not only maintain its present position in our national economic life, but shall strengthen and improve that position for the welfare of the nation as a whole."

Dwelling on the railways' problem of subsidized competition, Mr. Johnston recommended not only that railroad men demand fairer treatment from the political authorities. "But," he added, "there is more which may be done by the railroads to meet long-haul highway competition. We will, I think, soon wake up to the fact that through revision of rates, schedules and service we can provide shippers with more service, quicker service and better service at lower costs. We cannot only regain but retain our full share of the traffic."

"The development of the United States," he continued, "was dependent upon the railroads. The maintenance of our national economic structure, and even our own lives, are likewise dependent upon the railroads. No further proof of this is needed than for you to imagine the chaos which would exist if railroad service were blacked out for a month, a week or even a day."

"In the handling of freight traffic there is nothing in the picture to cause even the most skeptical to think that our railroads are anything but indispensable. The large bulk of the freight traffic of the country, and particularly the long-haul traffic, now moves and must continue to move by rail. It is utterly ridiculous to think that the railroads cannot meet any sort of highway competition beyond the shorter hauls."

"Perhaps you have traveled by private automobile into or out of Chicago over some of our main highways, particularly during certain hours in the morning or evening of week days. We all know there now exists a serious congestion and it appears to be growing worse."

"Just how long the public will put up with such a condition I cannot say, but surely the problem of investment in new and additional highways, under present conditions with respect to taxes and debt and the unsatisfactory apportionment of each as to payment, has many headaches for our governmental bodies, to say nothing of the cost of upkeep and replacement of our present highway system. Furthermore, there is one thing that may be said without fear of contradiction: the railroads move freight with a minimum of hazard to highway passenger travel; and passenger use of the highways is one of the real purposes of their construction and improvement."

Determine What Traffic Rails Are Entitled To—Then Do What Is Needful to Get It

"Why let our blood pressure rise over short-haul freight traffic on the highways? We all admit that the

truck has its proper place in the transportation field. The thing for us to do as thinking railroad men is to determine in all cases the class of freight traffic that properly and most economically should move by rail and then adjust our machine by making the necessary changes in rates, schedules and service to attract the business. You cannot blame a shipper for using the form of transportation best suited for his needs, everything considered."

"There appear many ways in which the railroads may improve their present position in meeting these new forms of competitive freight transportation. All should have careful analysis and study. With proper co-operation and co-ordination, the railroads should soon be able to regain and maintain their proper place in the sun."

"As regards passenger traffic, we have to meet private automobile, bus, and airplane competition, all of which have shown rapid growth during the past few years. We acknowledge that the private automobile is here to stay and admit that we could not get along without it, so why not face facts and confine our worry to the payment of our own installments?"

"Then there is the bus which people ride for various reasons—mainly because of the lower cost and convenience of service. Some just naturally enjoy highway scenery, filling and first aid stations, and the food at the 'greasy spoon.' With respect to long-haul bus competition, I feel much the same as in the case of long-haul freight competition. The railroads should be able ultimately to more than meet it."

"Now we come to air competition. The airlines are showing a rapid increase in the number of passengers carried. The attraction here seems to be twofold, assuming the present fare is not far different from that on the railroad after considering sleeping accommodations and food; first, flying is time-saving; and second, it's a thrill, which is not a permanent sales argument. Airplane competition does not appear so much to me as a real disturbing factor for many reasons which are known to you all. I am one of those who feel that the safest place a person can be is on the ground. To my mind, the convenience and comforts of a modern railroad passenger train are sufficient ultimately to offset the advantage other forms of passenger transportation may seem to have at the moment, to say nothing of the relative safety merits."

Plenty of Opportunities to Develop

R. R. Passenger Business

"A few days ago I came down to Chicago from St. Paul on one of the up-to-date streamliners. I was given a seat in the Diesel opposite the engineer and sat there for a distance of 80 or 90 miles, closely watching the performance. With little apparent effort this train covered the distance from St. Paul to Chicago, including stops, at better than 60 miles per hour. After leaving the engine I occupied space back in the train where I enjoyed a most pleasant atmosphere, a delightful dinner and all the conveniences of an exclusive club. What more could a traveler desire? You can't tell me that the rail-

roads are all 'washed out' in handling passenger business.

"The entire situation with reference to handling the passenger business of the country is in a state of flux. This is due mainly to the relatively rapid development of the automobile, the bus and the airplane, and to the fact that the sound position of these agencies in the passenger transportation field has not yet been definitely established. In the horse and buggy days—not so long ago—the railroads handled about all the passenger business moving.

"It is most difficult for us to get away from those horse and buggy days, but they are gone forever. We must meet new conditions. I think we are meeting them, but perhaps not as fast as we could. We may well feel proud of the strides thus far made in our improvement of passenger train equipment and schedules. But much more remains to be done. When people find that the thrill of riding on rubber and smelling the fumes of gasoline has worn off and that the safety, comfort and economy of railroad travel are not excelled, then we will be in our proper place. This is particularly true of the longer haul travel.

"Predominant in the field of freight transportation, highly important in passenger transportation, there is a third field, including these two and more, in which railroad service is vital to America. This lies in their relationship to national defense. Preparedness is our national life insurance, or, perhaps more properly, our national endowment policy. And in considering preparedness, it must be realized that the backbone of our national defense is transportation.

Railroads and National Defense

"A national emergency—which I trust we shall never see—involves the movement of large bodies of men, quickly and safely. It involves the movement of large quantities of munitions and other implements of war; the movement of materials and supplies for our armed forces; all in addition to the normal requirements of our people. Speed, reliability and adequacy of service are essential. Could we entrust this job to any other form of transportation? We all know that only the railroads are adequate to the task.

Could a Corpse Spend 125 Million Dollars?

"Shorn of all frills, the situation of the railroads is simply this—The railroad industry is not dead; the railroad industry is not dying; the railroad industry is ready, willing and able to march forward with America to new and even greater achievements.

"This fact is clearly demonstrated in many ways, but one of the more recent occurrences will prove my point. In the past 100 days, or since July 1, our railroads have placed orders for 388,000 tons of new steel rail and there are inquiries pending for an additional 225,000 tons, or a total of 613,000 tons representing a cost item of something like \$30,000,000. Also since July 1, orders have been placed for 52 new locomotives and inquiries are pending for an additional 75 new locomotives. Orders have been placed during the same period for 24,256 new freight cars, with inquiries pending for an addition 20,000 freight cars.

"In addition to the purchase and prospective purchase of new steel rails, locomotives and freight cars, there have been orders placed for new passenger equipment and for large quantities of materials and supplies to carry out rebuilding and rehabilitation programs on the individual lines. At your leisure, you might roughly compare this performance with that of competing forms of transport.

"I have pointed out how indispensable the railroads are to our nation and our people. I believe it would be laxity on my part if I did not take this opportunity also to say something of our weaknesses. I said there is room for improvement and I mean just that. We are fully aware of the progress made in the improvement of railroad property, including locomotives and cars, and the improvement in the efficiency of our operations over the years.

Railroads Need More Research Into Customer Needs

"Yet in putting our house in order to fully meet other forms of competitive transportation, we must give, in my judgment, more intensive attention and devote more of our energies to the matter of research. This applies to manufacturers of railroad power and equipment, materials and supplies, as well as to the railroads themselves. We know fairly well what we have to meet at the moment in the way of competition, so what reason have we for delay?

"In our studies we must consider time, cost, convenience, comfort and safety—all of which largely hinge upon the condition of the physical properties. We may think we are in good shape now, but if we find that competition requires more and better facilities, then more and better facilities must be provided. There is where research comes in, first, to determine correctly just what is necessary, and second, to determine the proper way to provide it.

"Another weakness that may be charged to us is our lack of co-operation and co-ordination within the industry. How is it possible for our industry to maintain the position it deserves unless there is a full measure of co-operation and co-ordination of its component parts? I am unable to give you the complete answer to this, but some way out must be found. I realize fully that the railroads compete with each other and will continue to do so, but as the Irishman said, 'There is a hell of a difference between freedom of speech and etiquette.'

"What our customers demand and must have is the best for the least money. I believe that we are confronted with improving our facilities and our service and, at the same time, lowering costs. Naturally, that heads us right into reductions in the cost of labor, the major portion of our expenses. There appear many injustices and inconsistencies in our labor costs and here, too, is opportunity for real research and study. It's a difficult problem which must be solved and the time to undertake the solution, or at least to lay the foundation for a proper solution, will never be better.

"When it comes to real unadulterated usefulness in the many communities in this great nation served by our industry, we, I think, are 'tops' and instead of dragging our lower lips around, we may well throw out our chests and take our proper place among the leading industries and citizens of this grand country. That's the way we should all feel about the railroads. In the last few years, however, we have been on the defensive, sitting within our fortifications and resisting the onslaughts of the enemies of rail progress. Now the time has come for vigorous and sustained counterattacks on all fronts.

Let's Turn Around and Chase the Bear for a Change

"There should be no discouragement in so far as the future of the railroad industry is concerned. You know that 'When a bear is chasing a man down hill, there isn't much time to look at the scenery.' Let us make up our minds to get that bear on the upgrade and enjoy some of the scenery we have missed for some time past."



The Six-Wheel Diesel Switching Locomotive with the Hydraulic Torque Converter Transmission

Diesel-Hydraulic Switcher Shows Flexible Characteristics

Hydraulic transmission permits full engine horsepower to be utilized at all speeds

A DIESEL switching locomotive with a hydraulic transmission was demonstrated during the past summer at several points in the Middle West to railroad and industrial representatives interested in locomotive performance. One of the tests made with the 400-hp., 70-ton locomotive in a demonstration at the Willard, Ohio, yard of the Baltimore & Ohio was that of starting, accelerating, stalling, holding, and re-starting a load of 300 tons on a five per cent grade through the hydraulic transmission. In this test the engine continued to operate without overload, its load and speed under throttle control.

The power plant of this locomotive consists of a Diesel engine designed specifically for railroad switching service by the Hoovens, Owens, Rentschler division of General Machinery Corporation, and a hydraulic transmission which includes a Schneider hydraulic torque converter and a hydraulically-operated gearbox developed by the Hydro Transmission Corporation, Hamilton, Ohio. The locomotive was built by the Plymouth Locomotive Works, Plymouth, Ohio, and has essentially the standard chassis of the builder with a wheelbase of 8 ft. 8 in. and a length over the couplers of 27 ft. 6 in.

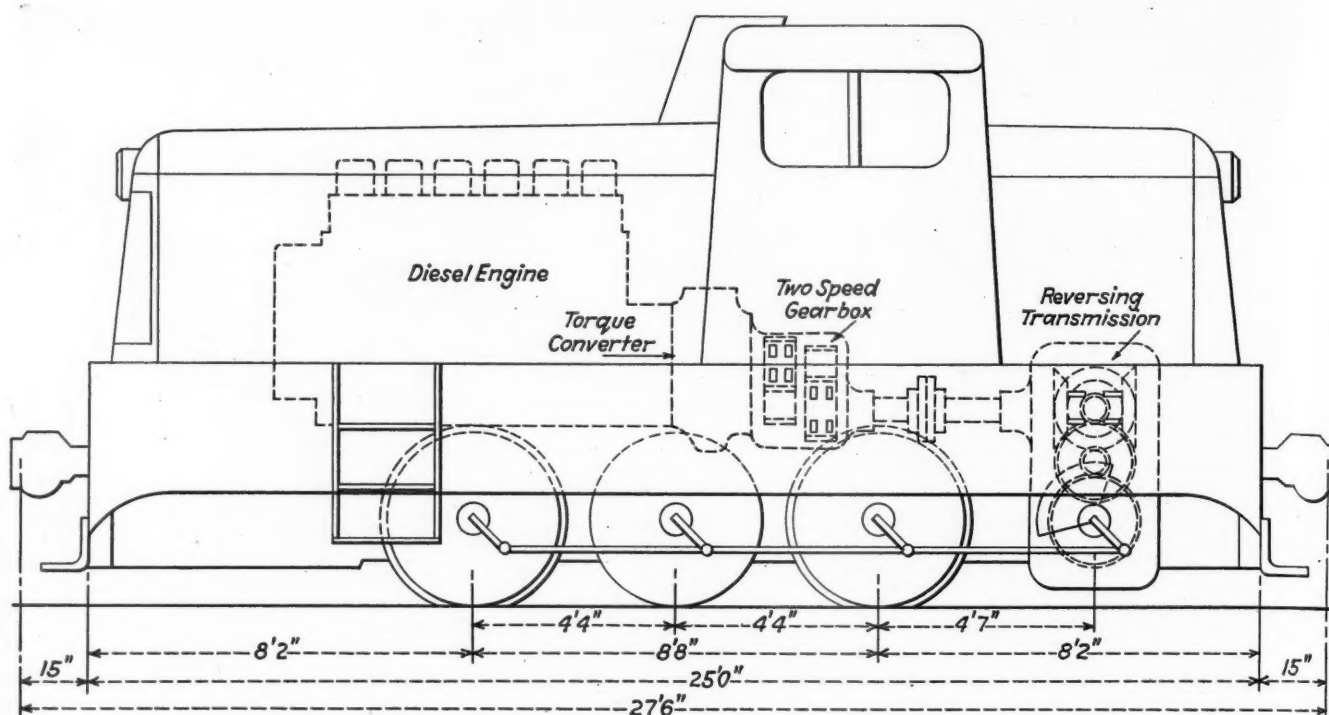
The torque converter permits the constant horsepower of the Diesel engine for any given throttle setting to be converted into varying combinations of locomotive speed and driving-wheel torque automatically, depending upon the traction demand of the load on the locomotive. As

there is no mechanical connection between the engine and the driving wheels, this form of power transmission gives the engine an opportunity to develop full horsepower at all speeds.

The six-cylinder Hamilton Diesel engine has cylinders 8¾ in. by 12 in. and is rated at 400 brake horsepower at a crankshaft speed of 900 r. p. m. It is the four-cycle type, single-acting, with a solid-injection system and has two exhaust and two intake valves.

The cylinder block, cast in one piece, and the individual cylinder heads are of Meehanite iron. Cylinder liners of special cast iron are set in the cylinders and the cooling water circulates in the space between the liners and the cylinders. The cylinder heads are made in one piece with division walls and ribs to assure effective cooling. They are bolted to the cylinder jackets by special steel studs and the joint between the cylinder and the cylinder head is dry.

In each of the cylinder heads is placed one fuel valve, one relief valve, two air-inlet and two exhaust valves. Fuel is delivered to the injection valves by individual Bosch pumps operated from the main camshaft and the amount of fuel injected into the cylinder is controlled by the injection pump which is regulated by the governor. The fuel-valve nozzle injects the fuel into a water-cooled pre-combustion chamber and the injection pressure is determined by a spring-loaded valve in the fuel valve. Relief valves are set to protect the cylinders



Outline and Dimensions of the Plymouth-Hamilton Hydraulic-Drive Switching Locomotive Showing the General Location of the Various Parts of the Power Plant and Transmission

against excessive pressures. The air inlet and exhaust valves are operated through push rods by the camshaft and are of a size to permit proper scavenging and charging of the cylinder with clean air.

The cast alloy crankshaft has $7\frac{1}{2}$ -in. journals and $6\frac{1}{4}$ -in. crankpins. It is machined to a close tolerance to keep the bearings at right angles to the line of the piston at any point of the stroke and is drilled for the distribution of oil to the crankpin bearings. The crankshaft is held in a longitudinal direction by one thrust bearing. Main bearings are of the precision type and require no fitting.

The two-piece connecting rod is made of an open-hearth steel forging. The upper end of the rod is fitted with bronze bushings to carry the piston pin and the rod is drilled through the center for the pressure lubrication of the pin. The heat-treated aluminum-alloy piston is fitted with five power rings and three scraper rings. The floating piston pin is carried in the cross

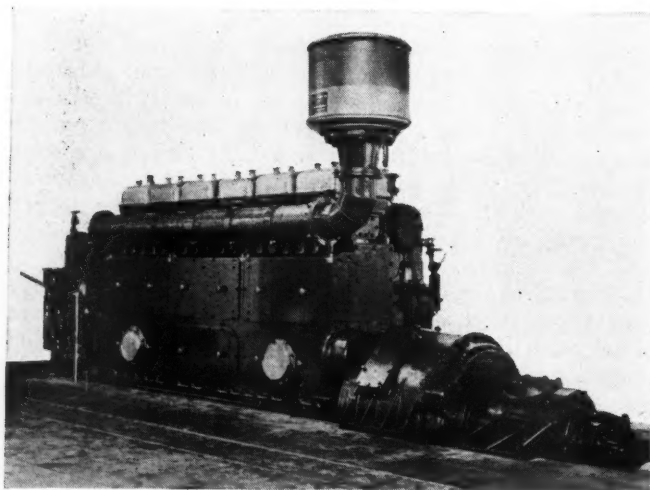
bore of the piston which is plugged to keep lubricating oil from the pin off the cylinder walls.

A centrifugal variable-speed governor controlled by the throttle, is driven by bevel gears from the camshaft and acts through linkage on the injection pumps. An over-speed device acts independently on the fuel-pump control rods and shuts off the fuel when the maximum speed is exceeded. The governor has an attachment which reduces the engine speed to idling upon the failure of the lubrication or the cooling water. A cooling system, comprising a fan, radiator, oil coolers and pumps, is furnished for the cooling of the water, lubrication oil, and converter oil.

The Schneider hydraulic torque converter, a schematic cross section of which is shown in one of the drawings, consists essentially of three parts: (1) the centrifugal pump impeller attached to and driven by the Diesel engine flywheel; (2) the turbine attached to the drive shaft of the locomotive and, (3) the torque-increase feature, i.e., reaction vanes, which do not rotate and are attached to the converter housing. The housing of the converter is bolted to the engine housing. There is about $\frac{1}{8}$ -in. clearance between the rotating and stationary parts. The rotating parts are mounted on ball bearings and are lubricated by the converter oil. The power transmission through the converter varies with the engine speed and depends on the velocity of the oil through the various bladings in the converter.

The oil for the converter and the gearbox is carried in a tank located directly beneath them. The oil is pumped from the tank through a filter to the converter by a pump which is driven by V-belts from the forward end of the Diesel engine. The operation of the converter does not depend upon the pressure developed by this pump. Its function is to keep the converter filled with oil. The flow of oil through the converter will be less than 80 gal. per minute. Auxiliary equipment cools the converter oil.

A selective two-speed gearbox with a gear ratio of 1 to 2.5 is bolted directly to the housing of the torque converter. It has two identical and interchangeable gear



The Hydraulic Torque Converter and the Two-Speed Gearbox Assembled with the 400-Hp. Hamilton Diesel Engine

sets with their positions reversed on the shafts so that two identical pinions and gears are always in mesh. The hydraulic clutch consists of plates with annular V-grooves which match a set of pistons carried in a drum attached to the shaft. The clutch plates form the hub of the gear.

To engage the clutch, pressure is applied to the pistons by oil supplied by a small high-pressure pump coupled to the torque-converter pump. To change from low to high gear, the shifting valve is moved by the operator from low to neutral to high positions. This relieves the pressure behind one set of pistons and applies pressure to the other set of pistons. It is not possible to engage both clutches at the same time as the oil supply to them passes through the shifting valve.

The reversing transmission is rigidly held in position at the rear of the locomotive by wedges and bolts. It is of the compound type in order to obtain the necessary speed reductions with gears of proper dimensions. To obtain equivalent wearing properties and to divide the wear on both sides of the gear teeth, the first speed reduction is by two spiral bevel pinions with the drive shaft passing, with clearance, through their bores. This shaft carries an external-internal-tooth type of clutch which will engage either pinion to produce the forward and reverse motion of the locomotive. These pinions drive a large spiral bevel gear mounted on the hub of a herringbone pinion. This pinion drives a large herringbone gear mounted on the shaft of a second herringbone pinion which, in turn, drives the herringbone gear on the jackshaft.

The gears and shaft are accurately machined and mounted on roller bearings. An oil pump in the transmission supplies oil to the gears and bearings mounted in the upper part of the gear case and furnishes the oil pressure to operate the forward and reversing interlock. A self-aligning coupling of the external-internal-gear type connects the reversing transmission through the two-speed gearbox to the hydraulic driving unit.

The locomotive with its load can be started in high or

low gear without causing damage to the engine or the transmission due to the use of the hydraulic torque converter. As most of the slip during clutch engagement is taken up by the converter, the clutch wear is said to be very small and the clutches can be of the quick-gripping type. Road shocks are not transmitted to the engine, or engine shocks to the road bed, because there is no mechanical connection between the engine and the transmission.

New Products Alter Fire Hazards

(Continued from page 622)

meetings will be held in January and May of each year and the annual meeting in October.

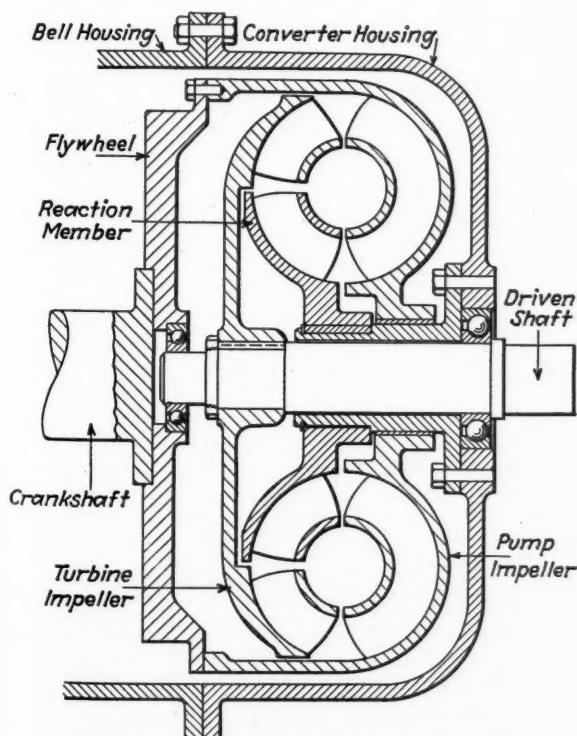
The program included a number of reports dealing with recommendations for fire prevention in structures and in the handling of inflammable commodities. One of these reports, that of the committee on Electricity, presented by J. E. Neeham, chief fire inspector of the New York Central, was an analysis of the various electrical codes, with suggested procedure for the treatment of installations that existed prior to the adoption of these codes.

The importance of two-way portable radios in fire fighting was outlined by Joseph J. Graham, chief of the Fire Prevention Bureau of Chicago. He described its effectiveness in fighting Chicago's recent fire in five grain elevators that were spread over ten acres of ground. He also described Chicago's method of building inspection.

According to the Committee on Records and Statistics, there were fewer fires in 1938 than in any year in the 20-year period since 1919 with the exception of 1927. In 1938, there were 4,372 fires, compared with 4,932 in 1937, and with the 20-year average of 6,820. The loss amounted to \$3,820,214 in 1938, compared with \$3,750,707 in 1937, and a 20-year average of \$6,184,735. Of the total number of fires in 1938, only one resulted in a large loss, \$880,627, while 3,627 caused losses of less than \$5,000 each. The average loss for the 4,372 fires in 1938 was \$874.

Trespassers caused 648 fires with a loss of \$326,895, smoking 331 fires with a loss of \$320,878, and locomotive sparks and hot coals 288 fires with a loss of \$163,732. A total of 1,036 fires, with a loss of \$499,874 occurred in box cars, 264 with a loss of \$110,859 occurred in miscellaneous buildings, 228 with a loss of \$211,183 occurred on bridges and trestles, and 227 with a loss of \$9,459 occurred on telephone and telegraph and signal poles and lines. The largest loss, \$957,719, occurred on wharf property with 31 fires. The results of fire prevention activities since 1919 are shown in the following table:

Calendar Year	No. of Roads Reporting	Mileage Reported	No. of Fires	Amount of Losses	Average Loss Per Fire
1919	75	193,991	9,194	\$8,560,473	\$931
1920	75	194,166	7,975	10,563,914	1,324
1921	75	207,634	7,963	7,589,611	953
1922	73	200,264	9,216	10,183,460	1,105
1923	76	210,444	8,395	9,001,123	1,072
1924	83	227,560	8,609	10,049,936	1,167
1925	85	215,451	7,866	7,397,434	968
1926	94	253,278	8,388	7,268,435	867
1927	49	158,023	4,283	4,328,631	1,011
1928	63	206,719	6,088	4,508,112	740
1929	67	216,092	6,556	4,376,345	668
1930	68	233,765	8,018	6,127,005	764
1931	69	256,896	6,676	6,883,352	1,031
1932	72	257,787	6,177	5,018,930	812
1933	68	231,366	5,319	3,744,949	705
1934	66	231,311	5,543	3,667,609	662
1935	65	236,347	4,829	3,273,927	678
1936	65	235,432	5,998	3,580,532	597
1937	66	241,394	4,932	3,750,707	760
1938	67	229,666	4,372	3,820,214	874
20-Year Average	71	221,879	6,820	6,184,735	884



Schematic Cross Section of the Schneider Hydraulic Torque Converter

NEWS

Supreme Court Takes R. I. Case

Issue is whether I. C. C. can use powers it has, to acquire those it doesn't have

The United States Supreme Court, on October 16, noted probable jurisdiction in No. 343—United States et al. v Lowden, et al., and advanced the case for oral argument on November 6. This case arose out of a suit to enjoin and annul certain conditions attached to an order of the Interstate Commerce Commission authorizing the leasing and operation of the Chicago, Rock Island & Gulf by the Chicago, Rock Island & Pacific, wherein the commission attempted to protect certain employees by providing that the dismissed employees should receive severance pay and that there should be no pay cuts among employees which would be affected by the lease.

The United States District Court for the Northern District of Illinois enjoined and set aside the conditions imposed by the commission, holding the I. C. C. exceeded its authority in imposing them. The commission contended in its petition to the Supreme Court that the lower court had no power to segregate the conditions from the order and could not annul the part without annulling the entire order. A decision by the Court should determine whether or not the commission has the power to attach to finance orders conditions which would seek to protect the social security of those employees affected by the merger.

In another case the Court denied the Virginian review of its suit to recover from the Federal Government additional sums held due on a Government shipment of coal. The company transported coal for the Government to the naval depot at Sewall's Point, Va., and charged for it at the reduced rate applicable to export coal. This coal, upon arrival at the naval depot, was mixed with other coal, part of which was exported and part of which was consumed locally. The railroad then brought suit to recover on the non-exported coal the difference between the domestic rate and the export rate.

The Government contended that it had bought the coal f. o. b. Sewall's Point from the coal contractors and that it was not a party to the rail shipping transaction. The United States Court of Claims, in which the action was brought, agreed with the Government's contention and dismissed the case.

The Court also denied the Central of

New Jersey a review of a damage suit brought against it by the Pennsylvania which grew out of the sinking of a Pennsylvania freight barge by a ferryboat belonging to the Central of New Jersey. In upholding the decision of the lower court, the Supreme Court held that a ferryboat which became lost in a dense fog and collided with a barge moored at the end of a pier was solely at fault for the collision, begin negligent in proceeding at an excessive speed. It was also held that the barge was under no duty to sound a warning.

Frisco Authorized to Purchase Bus Routes

The Frisco Transportation Company, affiliate of the St. Louis-San Francisco, has been authorized by the Interstate Commerce Commission, Division 4, to purchase certain operating rights and property of two bus companies—the Scofield Bus Line and the A. C. Vicory Transit Company.

C. C. C. Fare Case Reopened

The Interstate Commerce Commission has reopened for reconsideration the case involving reduced fares for Civilian Conservation Corps enrollees in the West. Details of the decision were given in the *Railway Age* for July 1, page 47, while the postponement of the order from October 1, to December 1, was noted in the *Railway Age* for September 30, page 498.

Rock Island to Acquire Trackage

The Chicago, Rock Island & Pacific has been authorized by the federal district court to acquire 75 miles of track of the Gulf, Texas and Western, a subsidiary of the St. Louis-San Francisco, in central Texas. The purchase price was set at \$140,135. At the same time, The Rock Island will sell to the Frisco 15 miles of track near Ardmore, Okla. for a stated \$250,000.

Substituted Freight Service

The Interstate Commerce Commission has extended until October 26 the time within which Eastern railroads are required to file common carrier motor vehicle applications with respect to their substituted freight service. The commission's decision in this Ex Parte No. 129 proceeding (see *Railway Age* of August 19, page 292) held that special permissions and tariff rules authorizing the substitution of motor vehicle service for rail or water service and of rail or water service for motor vehicle service are in contravention to the certificate and tariff provisions of the Motor Carrier Act and should not be renewed when they expire.

Red Cap Dispute To Go to Court

Some roads would include tips in wages, but New Deal official says no

An early court test of an "accounting and guarantee arrangement" now generally used in the employment of Red Caps and station porters throughout the United States will be sought by the Wage and Hour Division, Administrator Elmer F. Andrews announced on October 14 in a statement made in connection with the issuance of an amendment of the record-keeping regulations under the Fair Labor Standards Act. The court test will be for the purpose of obtaining a determination as to the validity of the "accounting and guarantee arrangement."

(On October 17 the White House announced the resignation of Mr. Andrews as Wages and Hours Administrator and the designation of Colonel Philip Fleming of the Army engineering corps to take over Mr. Andrews' duties.)

In issuing the revised record-keeping regulation, Mr. Andrews announced that he had adopted the recommendations made by Gustav Peck, assistant chief of the Hearings and Exemptions Section of the Division, who conducted the hearing on the record-keeping practices used by railroads and terminals in the employment of Red Caps, hand baggage porters and other similar employees. The Administrator commended the practices followed by certain railroads under which, as a result of collective bargaining or otherwise, they pay Red Caps wages aside from such tips as may be received.

The regulations governing record keeping by employers were amended by the Administrator to require, "that with respect to employees employed in occupations in the performance of which the employee receives tips or gratuities from third persons which are accounted for or turned over by the employee to the employer," additional records containing the following information with respect to each such employee shall be made and preserved by the employer:

(a) Total hours worked each workweek in occupations in the performance of which the employee receives tips or gratuities from third persons.

(b) Total hours worked each workweek in any other occupation.

(c) Wages paid each workweek for hours worked under (a) above; provided, however, that if the employer claims as "wages paid" the amount of any gratuities or tips voluntarily paid to the employee by third persons and accounted for or turned over by the employee to the employer, such

(Continued on page 635)

How Traffic Jam Can Be Averted

Gormley says 'traders'* can prevent shortage by not using cars for storage

When the Association of American Railroads early in September stated that the railroads could handle an increase of 25 per cent over "present" tonnage without repairing or purchasing equipment (and a 50 per cent increase by repairing equipment then on hand), its calculations were based on the traffic volume as it was "several months ago," rather than at the time the A. A. R. predictions were issued. This fact was again brought out by M. J. Gormley, executive assistant of the A. A. R. in a speech to the New York Traffic Club on October 18, which followed closely in content his recent analysis of the railroad equipment situation given before the Atlantic States Shippers' Advisory Board and published *in extenso* in the *Railway Age* of October 7, page 526.

With this clarification of the "25-50" estimate, Mr. Gormley cited the fact that 834,694 cars were loaded in the October 7 week which, he said, was "an increase of 41 per cent in traffic, or 16 per cent more than we anticipated could be handled. This merely indicates how conservative the estimate was." While it was not stated over what period the 41 per cent increase was calculated, that figure would fit the average weekly loadings in May (approximately 592 thousand cars loaded per week.)

In addition to his summary of statistics indicating improved operating efficiency, with its consequent diminution of equipment required to handle a given tonnage (reported in Mr. Gormley's previous address heretofore referred to), the speaker said, "I believe it is safe to assume that there will be ordered or placed in service new this year not less than 60,000 cars."

"The peak traffic for this year," he went on to say, "has evidently passed. Records show that there is always a sharp decline from October until January or February, when traffic gradually rises to another peak. Railroad traffic in recent years has shown some lag below industrial activity and distribution, indicating diversion to other forms of transportation. It is, therefore, believed that if production should again reach the 1929 level the railroads would be called upon to handle approximately 10 per cent less of that production than they did in that year, or 5,283,000 carloads less than were actually handled in 1929."

"On the basis of present operating efficiency it requires approximately 175,000 freight cars to handle 5,283,000 carloads per year. Indicative of the effect of increased operating efficiency the railroads handled 8,236,000 more carloads in 1929 than were loaded in 1918, with an ownership of approximately 60,000 less cars and 5,600 fewer steam locomotives."

"The capacity of a railroad can be

greatly increased or decreased by the action of shippers or receivers of freight. Car orders should not be inflated, as such unnecessary orders cause a reported shortage when actually there is no real shortage. And, likewise, receivers should not order traffic in greater quantities than they are able to unload promptly upon arrival.

"Railroad capacity must be measured by its weakest link. If the strong features of railroad preparedness are coupled with a weak line of shippers' or receivers' delays in loading or unloading (including delays of the government as a shipper or receiver) then an unfavorable condition may result. However, I know it is the determination of the railroads that that condition will not be permitted to occur. I believe that the shipper members of the Regional Advisory Boards, and shippers generally, are fully cognizant of this and that the railroads can depend upon them for complete co-operation."

"At one time in 1918 there were 200,000 cars under load and standing still that could not be moved because the receivers could not unload them. This applied both to the government and to receivers in general. When you tie up 200,000 cars you prevent the loading of more than 400,000 cars per month."

"Methods of control are now available to prevent what happened during the last war and they will be used for that purpose. With positive co-operation by the shippers and the government there is absolutely no question but that the railroads will be able to meet any demands that may be made for transportation."

Club Meetings

The Railway Club of Pittsburgh will hold its annual meeting and election of officers on October 26 at the Fort Pitt hotel, Pittsburgh, Pa. The program includes a smoker and entertainment. Dinner for members and guests will be served prior to the meeting.

The New England Railroad Club will hold its next meeting on November 14 at the Hotel Touraine, Boston, Mass. E. H. Roy, general superintendent motive power, Seaboard Air Line, will present a paper entitled "Diesel Locomotive Application—Seaboard Air Line Railway." The meeting will start with a dinner at 6:30 p. m.

Transportation Conference Planned at University of Michigan

A conference on new technologies in transportation, jointly sponsored by the University of Michigan and "Life" magazine, will start at Ann Arbor, Mich., November 1. Speakers at the three-day gathering of special interest to railroad men will include C. F. Kettering, vice-president in charge of research, General Motors Research Corporation; Dr. R. M. Wick, research engineer, Bethlehem Steel Company, and F. G. Gurley, vice-president, Atchison, Topeka & Santa Fe. The conference is described as "designed to examine new methods, new materials and new directions in the transportation field" covering engineering, metallurgy, structure, tensile strength, speed and capacity in all fields of transportation.

Oily in More Ways Than One

Academic and government experts join propaganda party staged by oil industry

A conference on automotive "taxation" of oil men, college professors, tax "experts," representatives of "farmers' organizations," government highway officials and truck manufacturers' propaganda disseminators was held in New York, October 16 to 20, inclusive, under the sponsorship of the American Petroleum Industries' Committee, which is associated with the National Highway Users' Conference. Actually the conference went beyond its announced subject of taxation and went into elaborate programs for highway building and improvement (under the excuse of national defense), removal of "highway barriers" and general promotion of highway transportation. The titles of two speeches scheduled for October 18—"Preparation for a Campaign" and "The Value of Preparation Prior to a Legislative Session"—also indicate that interested parties are cooking up a heavy dose of "persuasion" for the public and their representatives.

The speeches on the first day were devoted largely to discussion of "taxes" on motor vehicles, with special attention to so-called "diversion" thereof and the need to organize a "tax front" against increases. The Tuesday sessions branched out into more extraneous subjects, two of which are of likely interest to railroad men.

Arthur C. Butler, manager, Motor Truck department, Automobile Manufacturers Association, presented a paper entitled "Problems of Truck Transportation" in which, after the usual arguments that the automotive industry employs many men; "keeps the railroads busy" with lucrative freight; pays lots and lots of taxes and serves communities not otherwise reached, paid special attention to roads as a military necessity. The pronouncements of a military officer and a congressman were cited to bear out such points as: (1) "war can be conducted without railroads but not without roads"; (2) it is important that roads be built "strong enough to take up any traffic that may come over them"; (3) "railroads operating on fixed tracks through large terminals and operating mass transportation service, can be put out of commission more readily than the thousands of small motor units designed to travel over shell-torn areas as well as paved roads"; (4) we would have first class highways in the interest of national defense if for no other reason; (5) "the highways would have to be built and financed out of public funds if it were not for the fact that they are financed almost entirely by tax revenue from passenger cars, motor trucks, and buses"; (6) "the army must have roads stronger than are needed for the motorist or for commercial purposes and these must be in service at all times undamaged by fluctuating climatic conditions."

The speaker then declared that the pe-

* This word is used by the English to designate both shippers and consignees—a device which must save them tons of paper and ink during the course of a year.

troleum industry is leading in a fight against the use of special motor vehicle taxes for other than highway purposes and for amendment of the federal highway act to contain more definite terms as to the minimum carrying capacity of roads and bridges that are in the federal aid system.

There followed an attack on the alleged "millions-of-dollars" anti-truck campaign of the railroads, which, in the opinion of the speaker, "has to some extent effected increased costs and a considerable amount of inconvenience for those in motor transportation." The paper went on to direct attention to the "latest railroad blasts" at private truck owners in their claim that the private truck gives advantage to "big business" over the smaller companies who must use common carriage. It sees therein a subtle appeal for support of common and contract carriers against privately-operated trucks but expresses the opinion that "unless present conditions in this respect are thrown into complete reverse, the railroads are looking in the wrong direction for bed-fellows in their current attack on the privately-operated truck."

H. S. Fairbank, chief, Division of Information, U. S. Public Roads Administration, discussed "A Highway Program for the United States" in a lengthy paper dealing largely with plans for widespread highway building. In explanation of the fact that the federal highway program [which was designed originally to improve farm-to-market rural roads—Ed.] early came to give preferential treatment to main trunk highways, the speaker submitted that their denser traffic demanded prior attention and that by such preference the greater part of all the longer trips would be facilitated. He pointed out, later in the paper, that limited improvements, financed by joint federal and state funds administered through the Public Roads Administration, "stand out as virtually the only improvements in conscious relation to a general plan of rural roads." Most local improvements, he claimed, have been loosely related and carried on by a multitude of independent local authorities, of short tenure of office.

Referring to grade crossings, Mr. Fairbank revealed that the Public Roads Administration has assembled surveys from which every remaining railroad grade crossing will soon have been examined in detail to determine "the extent to which if closed for the passage of trains" or closed to road vehicles, there would be inconvenience or delay of highway traffic.

He proposed an extensive, integrated scheme of road building, the costs of which would be met not only by federal contributions "as justified by the benefits to interstate communication and commerce and the national welfare and defense" and state road user revenues, but as well by "local property or other general taxes, consistent with the general benefits conferred."

Union Asks Audit of C. A. & E.

A petition asking for an audit of the financial condition of the Chicago, Aurora & Elgin was filed in the United States district court at Chicago on October 14 on behalf of the Amalgamated Association

Barges On A Bar

After the world's grimness of the past weeks there is a refreshing laugh in the news that government barge lines operations on the Missouri river between St. Louis and Kansas City are suspended waiting the receipt of more water for the stream. In the meantime the three barges stranded in mid-channel will remain right on the sandbars where they are.

Work toward making the Missouri permanently navigable across the state of the same name began more than a decade ago. During the years since nobody knows how many million dollars of public money have gone into the project. A year or two ago the completion of the project was announced amid the blare of brass bands and a fanfare of oratory.

But the government did not stop with dredging, diking, and marcel waving the river. It advanced millions more to buy barges to navigate the improved waterway, and to build lavish docks, warehouses and elevators to accommodate the freight which soon would be floating on the bosom of the stream. Traffic on the Missouri became so brisk that a person standing on the bank only had to wait a day or two to see a boat go by. It was all such a dazzling spectacle that it seemed to justify ten per cent of the millions that went into it and Kansas City got a decrease in rail freight rates.

That glittering dream now has been busted by the posting of notices announcing that all Missouri river traffic has been suspended pending the arrival of more water. The resulting laughter is so hearty that even the taxpayers who put up all the money have joined in it.

The taxpayers, however, are best advised to withhold their mirth. Those along the still unnavigable Missouri will have a last laugh coming when they obtain still another appropriation of millions to drill wells from which at least enough water can be poured into the Big Muddy to get those three stranded barges off the sandbars.

From the Hutchinson (Kans.) News

of Street, Electric Railway & Motor Coach Employees of America. The petition also asked that A. A. Sprague, Jr., be removed as receiver or at least that a co-receiver be appointed. According to Richard Plum, financial secretary of the Union, the employees last spring signed a contract under which they took a wage cut. The contract provided that wages be restored on a basis proportionate to increases in revenues. He said that many items in the balance sheet, as given on May 31, 1939, are not understandable to the union. The union also suggested a number of economies. Among others it urged that land not required by the road be sold, that leases with the ele-

vated road over which the C. A. & E. enters Chicago be re-examined and that duplication of offices be eliminated.

Burlington to Develop Industrial Site

The Chicago, Burlington & Quincy has purchased a 29-acre tract of land adjoining the west and north limits of Scotts Bluff, Neb., and will develop the tract as an industrial site.

N. & W. Enjoys All-Time High in Coal Loadings

Coal loadings on the Norfolk & Western during the week ending September 30 reached 22,237 cars, the highest weekly coal loadings in the 100-year history of the company, and a jump of approximately 1,500 cars over the previous week. At the same time the on- and off-line revenue freight loadings total continued its upward trend, reaching 33,940 cars the same week, an increase of 1,994 cars over the record of the previous week. Coal loadings for the following week, ended October 7, totaled 21,724, a decrease of 513 from the previous week. All loadings handled for the same week totaled 27,077. Coal constitutes about 85 per cent of the railroad's freight traffic.

September Operating Revenues 17.9 Per Cent Above 1938

Preliminary reports from 87 Class I railroads, representing 80.1 per cent of total operating revenues, made public by the Association of American Railroads, show that these roads, in September, had estimated operating revenues amounting to \$304,481,638 compared with \$258,289,661 in the same month of 1938, and \$374,130,641 in the same month of 1930. The September gross 17.9 per cent above that of September, 1938, but 18.6 per cent below September, 1930.

Freight revenues of the 87 roads in September, amounted to \$250,137,715 compared with \$207,633,735 in September, 1938, and \$292,451,820 in September, 1930—20.5 per cent above the former, but 14.5 per cent below the same month in 1930. Passenger revenues totaled \$30,594,558 compared with \$28,525,272 in September, 1938, and \$48,668,524 in September, 1930—7.3 per cent above the former but 37.1 per cent below the same month in 1930.

1938 Reports of Water Carriers Regulated by I. C. C.

The Interstate Commerce Commission's Bureau of Statistics has issued a compilation of selected financial and operating statistics from annual reports of water carriers reporting to the commission for the year ended December 31, 1938. The data, it is pointed out, "do not give a survey of all water borne commerce in the United States," since the I. C. C. has jurisdiction over common carriers by water only if they are railroad affiliates or parties to through rail-water rates.

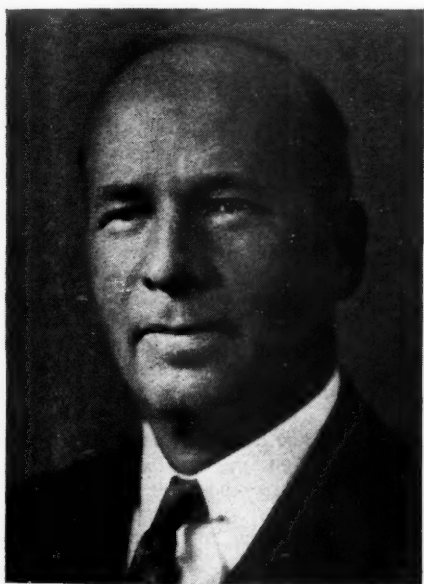
In 1938 a total of 97 water carriers filed reports with the commission as compared with 95 in 1937. Of last year's total, 42 were operating along the Atlantic and Gulf coasts, 22 on the Great Lakes, eight on the Mississippi river and its tributaries and

25 along the Pacific coast. All of these groups reported for 1938 total operating revenues of \$101,663,422, a decrease of \$4,958,168 from 1937's \$106,621,590. The composite net income for 1938 was \$888,831, an improvement of \$2,685,751 over the 1937 net deficit of \$1,796,920.

Mills in I. C. C. Safety Work Since 1906

Shirley N. Mills, whose appointment as director of the Interstate Commerce Commission's Bureau of Safety was noted in the *Railway Age* of October 14, has been identified with I. C. C. safety work for 33 years, having been given that assignment when he joined the staff in 1906. He has been in the employment of the Bureau of Safety continuously since its organization in 1911.

From 1907 until 1912 Mr. Mills was assigned to the Block Signal and Train Control Board, a body of experts employed by the commission to investigate, conduct ex-



Harris & Ewing

Shirley N. Mills

perimental tests and report upon the use of and necessity for block signal systems, automatic train control devices and other appliances, methods and systems designed to promote the safety of railroad operation. From 1912 to 1914 he was assigned to the Bureau of Safety to continue such investigations and tests, having meantime worked with that Bureau since its establishment on the inauguration of its system of investigating railroad accidents. From 1914 until 1919 Mr. Mills was a Bureau of Safety inspector engaged primarily in investigations and service tests of safety devices and systems and in investigations of accidents.

It was in 1919 that the new director became assistant director of the Bureau, and he had been senior assistant director since March 1, 1934. During this post-1919 period Mr. Mills has frequently served as acting director during absences of the director; and during the past two years he supervised the preparation of rules, standards and instructions for the installation, inspection, maintenance and repair of sig-

Maybe Doles from the Taxpayers Don't Hurt These Hardy Pioneers Much Either

"There is something challenging to the imagination", says the Wall Street Journal, "in the manner in which the aviation industry is dealing with its problems. Combination of technology with the human element on the part of the industry itself so far as service is concerned, and an atmosphere in regulation which, so far, is distinctly refreshing, together give air transportation in this country a literal flying start which promises well for the future, and to that future it might be said—also with a touch of literalness—that the sky is the limit."

nal appliances and systems recently prescribed by the commission under the Signal Inspection Act of 1937. Also he supervised the development of administrative practices and procedures under that 1937 law which was one of railroad labor's "make-work" measures.

Motor Truck Production Increases 34 Per Cent

American manufacturers turned out 34 per cent more motor truck units during the first eight months of this year than they did during a similar period of 1938—namely, 493,227, as compared with 366,477. The average wholesale value of each truck produced amounted to approximately \$675.

This information was imparted in a paper by R. F. Black, president, White Motor Company, and released by the Automobile Manufacturers Association, New York. The paper went on to contend that even if there were no motor trucks or buses on the highways for commercial purposes we would still have to maintain a vast system of highways for military requirements. The paper was particularly insistent in its attack upon "border barriers," expressing the opinion that such things as weight and size restriction, "port of entry" laws and special taxes are becoming unpopular, and declared that comparatively few of the measures which "were designed to place some onerous restrictions on highway transportation" were enacted last year.

News Men See Grade Separation Projects on Long Island

On October 19, a group of press representatives in the New York metropolitan area was given a "pre-view," by means of an inspection trip conducted by the Long Island Railroad, of a total of \$36,800,000 worth of grade crossing elimination work that is just getting under way on this company's lines on Long Island. Traveling in a special train and accompanied by representatives of the railroad's engineering department and of the New York City Transit Commission, the party first inspected the Atlantic Avenue project in Brooklyn. This undertaking, which will entail an expenditure of \$23,000,000, will involve the elimination of 20 crossings and of 1.25 miles of elevated structure by the construc-

tion of a double-track subway nearly five miles long.

Next the group inspected a project at Aqueduct, L. I., that will involve the elimination of three grade crossings at a cost of \$2,200,000, after which it proceeded to Rockaway Beach, where a steel and concrete viaduct, 4.5 miles long, is being built at a cost of \$11,600,000 to eliminate 39 grade crossings. Following the inspection trip the members of the party attended a luncheon at the Pennsylvania Station, New York.

Freight Car Loading

Loading of revenue freight for the week ended October 14, reached the highest point since November 15, 1930, when they stood at 844,955 cars, according to reports released by the Association of American Railroads on October 19. This was an increase of 10,261 cars, or 1.2 per cent, above the preceding week, an increase of 118,813 cars, or 16.4 per cent, above the corresponding week in 1938, and an increase of 38,860 cars, or 4.8 per cent, above the same week in 1937.

As reported in last week's issue, the loadings for the previous week ended October 7, totaled 834,694 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loadings			
For Week Ended Saturday, October 7, 1939			
Districts	1939	1938	1937
Eastern	171,099	143,724	160,960
Allegheny	164,167	124,786	154,612
Pocahontas	61,475	51,575	55,473
Southern	116,265	106,160	111,358
Northwestern ..	137,383	102,108	132,071
Central Western ..	125,790	118,182	133,999
Southwestern ..	58,515	56,081	63,785
Total Western Districts	321,688	276,371	329,855
Total All Roads	834,694	702,616	812,258
Commodities			
Grain and grain products	41,182	42,495	35,456
Live stock	20,811	19,565	20,531
Coal	171,640	134,309	157,527
Coke	11,346	6,141	9,250
Forest Products	36,824	31,797	33,836
Ore	62,125	28,515	58,495
Merchandise l.c.l.	159,822	161,564	173,516
Miscellaneous ..	330,944	278,230	323,647
October 7.....	834,694	702,616	812,258
September 30...	834,640	696,908	843,861
September 23...	814,828	669,704	836,885
September 16...	805,733	660,163	822,795
September 9....	667,409	568,707	708,202

Cumulative Total,
40 Weeks ... 25,260,361 22,841,771 29,958,208

In Canada.—Carloadings for the week ended October 7 totaled 68,594, as compared with 68,882 in the previous week and 60,686 in the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
Oct. 7, 1939	68,594	28,607
Sept. 30, 1939	68,882	30,476
Sept. 23, 1939	72,157	28,490
Oct. 8, 1938	60,686	23,805

Cumulative Totals for Canada:
Oct. 7, 1939 1,899,067 | 885,553 || Oct. 8, 1938 | 1,848,246 | 808,970 |
| Oct. 9, 1937 | 2,010,775 | 1,059,581 |

Railroaders Sift Safety Matters at Atlantic City

The Steam Railroad section of the National Safety Congress at Atlantic City, N. J., convened on October 17 and 19 to

discuss those safety problems peculiar to the railroad industry. Carl R. Gray, Jr., executive vice-president, Chicago, St. Paul, Minneapolis & Omaha, addressed the first session. He was followed by seven safety officers in a panel discussion. The session Thursday opened with an address by D. D. Fennell, president of the Council, in which he reviewed the history of the safety movement as initiated by the rail carriers, their accident record and their place in the scheme of a national safety program. Four railroad officers also occupied the speakers stand. They were: O. F. Gnadinger, supervisor of safety, Elgin, Joliet & Eastern; F. W. Curtis, supervisor of safety, Denver & Rio Grande Western; and C. F. Larson, superintendent safety, Missouri Pacific and C. L. Lafontaine, general safety supervisor, Great Northern.

Two Oil Companies Deny Alleged Traffic Agreement

Counsel for the Standard Oil Company of New Jersey and the Texas Company appeared before the Temporary National Economic Committee (Monopoly Committee) on October 12 and said that their companies had refused to enter into an agreement with the Association of American Railroads to revise rates on petroleum and petroleum products in the southeast because of the fear that such an agreement would run counter to federal and state anti-trust laws.

In an unscheduled appearance before the committee, Edwin S. Hall, senior counsel for the Standard Company, and Harry T. Klein, counsel for the Texas Company, presented correspondence exchanged between J. J. Pelley, president of the Association of American Railroads, and officials of the two oil companies which showed that they refused to participate in the proposed railroad arrangements, which provided for a revision of the rail rates on petroleum and a reformation of the practices of leasing railroad property for gas stations, if the major oil companies would abandon shipments of oil by truck in southeastern territory in favor of the railroads. Charges that such an agreement between Mr. Pelley and 13 major oil companies had been entered into were made last week

by Eugene L. Orvis, a traffic consultant of Jersey City, and reviewed in last week's issue.

Mr. Orvis, who was dismissed last week until the authenticity of Mr. Pelley's memorandum setting out the agreement could be ascertained, returned to the witness stand and insisted that the agreement had been entered into and carried out. This testimony directly contradicted a letter made public by Mr. Pelley last week which denied that the agreement had ever been entered into.

Mr. Hall presented correspondence dating back to January, 1935 between his company and A. A. R. officials which led to conferences in which the oil company representatives said that the only condition on which they would go through with the arrangement would be to have the approval of the President of the United States, who, under the National Recovery Act, could grant immunity from the anti-trust laws in connection with certain types of recovery plans on the part of industry.

Railroad Exhibit Wins Award at County Bicentennial

Applause of the 50,000-odd persons who witnessed it won a special award of merit for a float entitled "Early Days on Our Railroad" at a "Pageant on Parade" commemorating the 200th anniversary of the founding of Morris County, N. J. One of the 50 floats depicting the history of communities in the county, the railroad exhibit was a half-size replica of a locomotive and passenger car of the period of 1850 mounted on rubber tires, loaned by the Baltimore & Ohio to the borough of Madison. Inasmuch as the Morris & Essex (now leased by the Lackawanna) was the pioneer road of the section, the Baltimore & Ohio lettered Morris & Essex on the side of the vehicles for the occasion.

The "train" carried five local residents dressed as engine crew, conductor and flagman in costumes of the period while five comely ladies rode in the car as passengers. In order to prevent a contingent of Civil and Spanish War veterans from running into the train, the actor-flagman at each stop of the parade ran back and did the customary flagging; five blasts on the

whistle recalled him to his post. The loud applause which greeted such antics and the appearance of the train earned for it a special award of merit which was forwarded to President Willard of the Baltimore & Ohio.

The Delaware, Lackawanna & Western exhibited a train of its latest equipment in the Morristown freight yards during the day of the celebration. It is estimated that about 8,000 visited the train and received a copiously-illustrated booklet entitled "Early Days on the Morris & Essex Railroad" prepared especially for the occasion by the Lackawanna. A reception was tendered later in the day to civic officers in the road's new buffet-lounge car.

R. C. C. Has Repaid 78.5 Per Cent of Fund

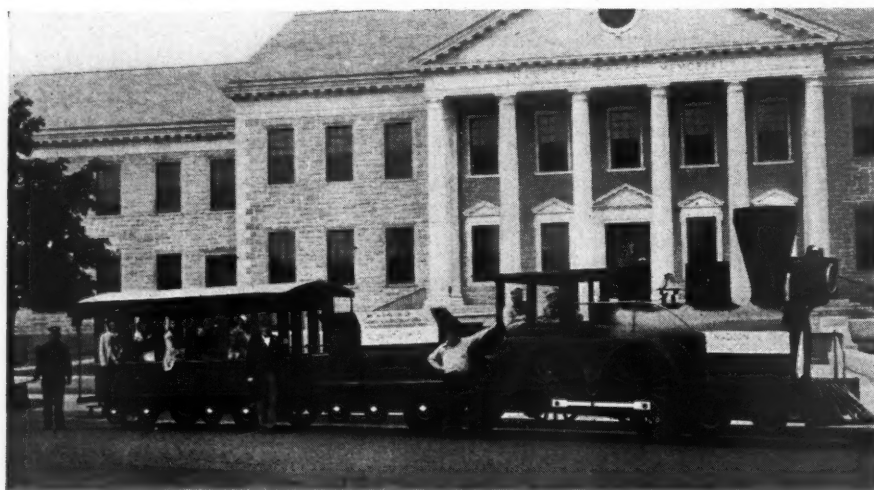
E. G. Buckland, president of the Railroad Credit Corporation on October 19 reported that 78½ per cent of the fund originally contributed has been repaid to the carriers participating in the Marshalling and Distributing Plan, 1931. The report was approved by the Board of Directors at a meeting in New York on that day.

At the end of the fiscal year September 30, 1939, according to the report \$57,706,441 has been repaid to the participating carriers, of which \$30,279,326 was in cash and \$27,427,115 credited on obligations. Two additional liquidating distributions amounting to a total of \$735,001 or one per cent of their original contributions to the fund were made by the Corporation in the past fiscal year. Outstanding loans on September 30, 1939 totaled \$19,444,223 representing notes on 18 borrowing carriers. Of these borrowers, 14 are being operated by bankruptcy trustees, three by equity receivers and one whose loan balance has been reduced to judgment. Prior claims make foreclosure of the latter account inadvisable according to the report.

"They Must Not Meet" Theme of November Safety Program

The large A. A. R. monthly safety poster which railroad passengers find posted in stations and on other railroad property will for November portray in color a collision between a locomotive and a large truck hauling gasoline entitled "They Must Not Meet." In distributing the poster the Safety Section also enclosed a copy of a speech delivered recently by L. G. Bentley, chairman, committee on education, at the fifth annual Virginia State-Wide Safety Conference in which the point was stressed that accidents involving passengers and employees have greatly decreased since 1918, principally because the railroads have positive control over the actions of such parties; trespasser deaths and grade-crossing accidents, on the other hand, show far less satisfactory improvement because the carriers themselves have little influence over these factors.

With respect to this situation, Mr. Bentley declared: "The responsibility of exercising this positive control over the actions of drivers of motor vehicles does not rest with the railroads but it does rest with street and highway authorities, law mak-



This B. & O. Replica Won An Award of Merit in the Bicentennial Celebration of Morris County, N. J., Acting as Morris & Essex Equipment

ing and enforcement bodies, educational authorities in relation to school buses and the owners of public buses and trucks.... The railroads will continue to acknowledge and discharge their responsibilities in every possible way to the end that highway railroad crossing accidents may be eliminated, but there is little else that they can do other than that which they are doing.

"Obviously, if this class of accidents is to be held in check as is being done by the railroads in connection with employees and passengers over whom they are exercising suitable control, public organizations authorized to regulate the acts of motor vehicle drivers must acknowledge and discharge their responsibility at railroad crossings with the same zeal displayed by them at other points on the streets and highways."

New Equipment Installed and Ordered This Year

New freight cars placed in service or ordered by the Class I railroads in the first nine months this year totaled 37,757, according to the Association of American Railroads. Of that number 14,704 have been put in service since January 1 this year and 23,053 were on order on October 1, 1939.

Class I railroads in September placed orders for 16,497 new freight cars, which exceeded by 1,793 cars the number of new freight cars put in service in the first nine months this year. Of the total number for which orders were placed in September, 10,774 were coal cars and 5,413 were box cars. Orders also were placed for 310 new flat cars. Out of the 23,053 new freight cars on order, 4,835 are to be built in railroad shops while the remainder are to be constructed by private car-building concerns.

New freight cars on order on October 1 this year were an increase of 15,594 compared with the number on order on October 1, 1938, but a decrease of 1,292 compared with the same day in 1937.

The number of new freight cars installed in service in the first nine months this year was an increase of 6,414 compared with the same period last year, but a decrease of 41,603 compared with two years ago. Of the total number of cars installed in service up to October 1 this year, 2,223 were put in service in September.

New steam locomotives on order on October 1, 1939 totaled 68, of which five were ordered in September. On October 1 last year there were 14 on order and on October 1, 1937 there were 212. New electric and Diesel-electric locomotives on order on October 1 this year totaled 40, orders for nine having been placed in September. On the same day last year, there were 24 such orders and two years ago, there were 28.

New steam locomotives put in service in the first nine months totaled 45, 13 having been installed in September. New steam locomotives put in service the first nine months last year totaled 153 and in the same period two years ago there were 269. New electric and Diesel-electric locomotives put in service in the nine months period this year totaled 157 of which 23 were installed in September. In the same period last year, there were 94 put in

service and in the same period two years ago, there were 47.

In the above figures relating to new freight cars on order, only those for which orders have actually been placed up to October 1 this year were included. Freight cars and locomotives leased or otherwise acquired are not included in the above figures.

Unemployment Insurance Claims Decisions

A former trainman suffering from a weak arm and dizzy spells was held able to work and therefore not disqualified for unemployment insurance benefits because he failed to accept a call as a car rider, in a recent decision by the Railroad Retirement Board, under the Railroad Unemployment Insurance Act.

"Failure to accept work which, in view of his physical condition, would be particularly hazardous, would not subject him to the disqualification provided for in section 4(a)(ii) of the Railroad Unemployment Insurance Act," the decision states. "Such work would clearly not be 'suitable,' particularly in view of the requirement of section 4(d) that the degree of risk involved to an employee's health and safety, as well as his physical fitness, should be taken into consideration in determining whether or not any work is suitable for him."

The claimant was a trainman who sustained injuries in November, 1934, which resulted in a weak arm and dizzy spells. He worked as a checker in the railroad yard from June 9, 1936, to January 18, 1938, at which time the job was abolished. From May 16, 1938, to December 14, 1938, he worked for the WPA, returning to an "easy job" with the railroad on December 19, 1938. This job was abolished on February 24, 1939, but claimant was placed on the extra list at the railroad yard on May 3, 1939, since which time he has on a few occasions failed to accept calls because of physical inability to do the work offered as a car rider.

A somewhat similar decision was rendered in the case of a switchman who was removed from service because of high blood-pressure but was eligible for non-hazardous work on the railroad. "To be 'able to work' within the meaning of section 1(k) of the Railroad Unemployment Insurance Act," the decision states, "it is not necessary that an individual be able to do the work of his usual occupation; it is sufficient if he can perform some recognized form of work in a normal manner. Since the chief surgeon has declared the claimant eligible for non-hazardous work on the railroad, and since there is no evidence of his inability to perform such work, he is 'able to work.'"

Another recent decision held that a claimant suffering from chronic alcoholism and unable to converse coherently was not able to work. The claimant, formerly employed as a carman, sustained a fractured skull on November 2, 1938, and has not been employed since. He has recently received hospital treatment for delirium tremens and has been declared by a company physician to be unable, because of chronic alcoholism, to perform work. A

Board representative found the claimant unable to carry on a coherent conversation.

The decision held that the "claimant's medical history, the doctor's statement and the Board representative's observation indicate that the claimant is not able to perform the duties of any recognized occupation. He is, therefore, not 'able to work' within the meaning of section 1(k) of the Railroad Unemployment Insurance Act."

Hear Testimony on Stop-offs at Off-Route Points

Hearings on stop-off of cars for completion of loading or to partially unload at points off the direct route from origin to final destination in Trunk Line and New England territory opened in Brooklyn, N. Y., on October 16 before Interstate Commerce Commission Examiners Trezise and Haden. The proceeding is in effect a re-opening of the notable Freight Forwarding Investigation (docketed I. C. C. No. 27365) with respect to stop-off arrangements. In its finding in the case (decided October 11, 1938) the commission found that the practice of certain carriers "of permitting carload shipments to be stopped to complete loading or to partly unload at points which are off the direct route from origin to destination, without additional transportation charges for the extra service performed incident thereto, is unreasonable under Section 1 of the act." It found further "that, should any respondent desire to make points off its direct route of movement constructively intermediate for the purpose of meeting the competition of carriers serving those off-line points by direct lines, a reasonable practice in respect of such shipments would require the publication of just and reasonable off-line stop-off transit arbitraries for the movement from the main-line points of divergence to the stop-off points."

The carriers took exception to any requirement for an arbitrary assessment for stop-off at off-line points and petitioned for re-opening of hearings on the matter.

In testifying in favor of the present practice of stop-off at prescribed points off the direct route without assessment other than the \$9.53 stop-off charge in effect in Official Territory, railroad freight traffic officers and shippers declared that the off-route privilege is extended largely for the following reasons: (1) to meet truck competition; (2) to meet competition with direct-route roads; and (3) to extend markets for the carload shipper. Witnesses testified that to exact an arbitrary assessment for stop-off at points off the direct route would, among other things, reduce the ability of railroads to meet truck competition, inasmuch as the straight stop-off charge of motor carriers (of which a charge of \$3.85 per stop in Middle Atlantic States territory is typical) is already generally far lower than the railroad stop-off charge and a further assessment would widen the differential; that it would decrease competition between the railroads at points located on the branches of some and the main lines of others; that small shippers or shippers having only one plant would be at a disadvantage compared with those having plants widely distributed

and that plants located off main routes would be discriminated against. In illustration of the latter argument, it was pointed out that a certain manufacturer of fabricated steel is located on a secondary line of a major railroad just across the river from the main line of the same system but a number of miles distant from the junction point. If he chose to complete loading of a car billed between two points on the direct route, he would suffer an increased charge by reason of an off-route assessment while plants less than a mile distant on the main line across the river would not be so subject.

Railroad witnesses also pointed out that roads having short, direct main lines would be at a disadvantage in competing at points located on circuitous lines of other carriers, since the points would be intermediate on the latter and stop-offs thereon subject to no extra assessment. The Pennsylvania's main lines, for instance, lie geographically through the center of Official territory, but almost half of its potential business originates or terminates in large points reached by the road on other than main trunk lines. And while the road does not offer the stop-off privilege on out-of-route at all points, it does so at prescribed points largely because of carrier competition. A little more than 20 per cent of its cars afforded stop-off are given out-of-route stop-offs.

The carriers completed testimony on the matter of off-route stop-offs on October 18 and the examiners proceeded to consider the question of advancement of charges to forwarding companies by carriers, which relates to another finding of the Commission in the forwarder case scheduled for re-examination. L. H. Kentfield, of the Trunk Line Association, testified categorically that the member roads of the Association do not advance any charges to forwarders. Motor carriers were scheduled to appear starting October 19.

Council Bluffs Railroad "Appreciation Week" a Success

"Railroad Appreciation Week" held in Council Bluffs, Iowa, on October 8 to 14, (as described in the *Railway Age* of October 7) developed such keen interest that for two weeks prior to the celebration townspeople were wearing enginemen's caps and railroad trademarks on the streets. Railroad Appreciation Week was the outgrowth of a "back to the rail"

movement initiated by a group of engineers, brakemen and other employees of railroads in Council Bluffs to protect their jobs which are being jeopardized by the diversion of traffic. As a result of the success of the movement in Council Bluffs, Back-to-the-Rail Club No. 2 is being organized in Omaha, Neb.

The week's program at Council Bluffs included a barbecue, a homecoming and parade, a banquet for railroad executives, a concert by railroad bands and a dance. The banquet was attended by 986 guests who were served by the commissary of the Union Pacific, with 150 wives and daughters of railway employees acting as waitresses. The speakers included Don B. Stouffer, president of the Council Bluffs Chamber of Commerce, Walter R. Scott, commissioner of transportation of the Kansas City Board of Trade, R. V. Fletcher, vice-president and general counsel of the Association of American Railroads, and George A. Wilson, governor of Iowa.

English Blackout Precautions Cause Mishaps

Four persons were killed and five injured seriously on October 13 when two sections of a London, Midland & Scottish passenger train collided at Bletchley, England, about 46 miles from Euston station. One section of the train was standing at the station platform, the lights of which were out, according to blackout restrictions, and a drill engine was placing a coach on the rear when the second section crashed into it.

Three days later, on October 16, a night boat-express train of the same road from London to Heysham plunged into the wreckage of the previous collision of a light engine and a freight train near Warwick. At least one person was seriously injured.

Transcontinental Bus Line Gets Certificate from I. C. C.

All-American Bus Lines, Inc., conducting a trans-continental, low-fare highway passenger service with meals furnished en route, has been authorized by the Interstate Commerce Commission, Division 5, to continue such operations over specified routes between New York and San Francisco by way of Chicago and St. Louis. This favorable action of the commission came on All-American's "new service application" after the same decision had

found that neither the applicant, as successor in interest to Ni Sun Lines, Ltd., nor Ni Sun Lines, Ltd., was entitled to "grandfather-clause" rights over the New York-Chicago section of the route.

Generally speaking the majority report (Chairman Eastman dissented) held that public convenience and necessity required continuance of the type of service which All-American offers—finding in the record "persuasive" evidence to support the applicant's contention that the bulk of its traffic has been derived from a field "which was formerly served solely by so-called 'share-expense' or 'wildcat' automobile operators." The majority did agree with protesting motor carriers that they were in a position to furnish any additional service necessary. "However," the report goes on, "it remained for applicant to provide the particular type of service here in issue. Upon the record as a whole there is sound reason to believe, as contended by applicant, that its service, with the assurance of meals en route, has provided transportation with an appeal to travelers who are under the necessity of traveling long distances at the lowest possible cost, not only for actual carriage, but for such incidentals as food. Applicant thereby provided a service for a considerable portion of the traveling public which no other lawful agency of transportation had theretofore seen fit to provide."

The arrangement in connection with meals stipulates that food will be furnished en route with limits of 25 cents for breakfast, 35 cents for lunch and 50 cents for dinner; the meals are served at rest stops by restaurants under contract with All-American, and their average cost to the latter is about 10 per cent of the fare. Pillows are also furnished passengers en route without additional charge, while seats are assigned upon purchase of tickets. A footnote in the report reveals that All-American's present fares between New York, on the one hand, and Chicago, St. Louis, Los Angeles (via El Paso) and San Francisco (via El Paso), on the other, are \$12.70, \$14.85, \$40 and \$40, respectively; and those of the Greyhound Lines between the same points are \$15.20, \$16.60, \$41.85 and \$41.85, respectively. Protestants, in addition to bus lines, included rail carriers who objected to the granting of the application "on the ground that the existing services of bus lines and rail carriers is adequate." Meanwhile one of All-American's main contentions was that the public interest required its operation "as the only transcontinental bus line independent of railroad affiliation."

In his dissenting opinion Chairman Eastman discussed the grounds on which the majority based its decision, as he understood them. As to the claim that All-American can furnish service at lower cost, the chairman points out that this contention is based upon the fact that it dispenses, for the most part, with expensive station accommodations; also, it uses a smaller and lighter type of bus equipped with motors which, it is said, can readily be repaired with facilities at practically any town in the country, thus largely avoiding a need for the maintenance by applicant of its own garage facilities. In addition, Mr. Eastman adds, "the evidence



A Homecoming and Parade Highlighted the Week's Program

shows that it pays relatively low wages . . . and that it secures an important advantage in load factor and supply of reserve equipment by reason of the fact that it does not undertake to meet the needs of any and all who seek to use its service."

"Lower fares which are not dependent upon inherent advantages in costs of service," the dissenting commissioner goes on, "cannot be a reason for authorizing operations under the public convenience and necessity provisions, in view of our power to prescribe just and reasonable fares. In other words, if the fares charged by existing operators are too high, they can be reduced. In this connection, however, it should be said that the trend of bus fares has been downward in a period when most carriers have been increasing their rates. The bus industry has a most excellent record in this respect.

"Apart from alleged low cost, the distinctive features claimed for applicant's service are such matters as free meals and pillows, baggage checking, seat reservations, single-coupon tickets, and integrated one-line operation. The free meals and pillows are, in effect, no more than a way of reducing fares, and one of questionable benefit, for some passengers might prefer a cash reduction permitting them to buy their meals on their own account. The other features are of minor consequence and have been shown of record not to be real distinctions . . . it must be borne in mind that the certificate which is granted will not be restricted to the type and extent of operations which applicant is now conducting, and that if public convenience and necessity can be established to the satisfaction of the commission by the character of evidence here presented, there is little to stand in the way of a multiplication of new operations. The final result of granting this certificate may, therefore, have a wider and more generally adverse effect than is reflected by existing conditions."

Furthermore, Mr. Eastman attaches "little importance" to the "so-called railroad affiliations of certain of the bus companies;" for he finds "no evidence here, or elsewhere . . . that such affiliations have in any wise throttled or impaired bus competition with the railroads." He went on to point out that the majority had made no finding in that connection.

Red Cap Dispute To Go to Court

(Continued from page 628)

amounts must be recorded in a separate column from that in which any other compensation is recorded.

(d) Wages paid each workweek for hours worked under (b) above; provided, however, that if the employer claims as 'wages paid' the amount of any gratuities or tips voluntarily paid to the employee by third persons and accounted for or turned over by the employee to the employer, such amounts must be recorded in a separate column from that in which any other compensation is recorded.

The hearings before Dr. Peck in Washington on June 27 and 28 were on the application of the International Brotherhood of Red Caps and other parties and opportunity was given both to representatives of the Red Caps and the Association of American Railroads to participate both

through the testimony of their witnesses and the submission of briefs.

Mr. Andrews' statement in announcing his decision to adopt the recommendation of Dr. Peck follows:

"The Fair Labor Standards Act requires employers to pay their employees engaged in interstate commerce wages at a rate not less than 25 cents an hour and 30 cents after October 24. Since 'tips' are not paid to employees by their employer but are received from third parties as gratuities, they are not wages. However, in order to avail themselves of the tips received by the Red Caps, the majority of the railroads of the country, just before the Act went into effect in October, 1938, instituted 'an accounting and guarantee arrangement' with the Red Caps whereby the latter are required to account to the railroad for their tips in order that the railroad might then use the amount of such tips to make a showing that, with 'make-up pay', it is paying wages to the Red Caps as required by the Act. In effect, the railroads have attempted to use the tips paid to railroad employees by the traveling public as a means of paying off the debt due from employer to employee under a federal statute—payment of wages by the employer at the rate of 25 cents an hour.

"The Red Caps have been caught between two forces. Many people, believing that the railroads were paying all their employees wages aside from tips equal to or in excess of the 25 cent minimum, have refused to tip. But the typical Red Cap of most companies has not received any such wages from his employer.

"Payment of the 25 cent minimum by the railroads would, it has been estimated, increase the total annual payroll of the railroads as a group by approximately one-tenth of one per cent, and would increase total operating expenses by an even smaller percentage. Nevertheless, the railroads seek to avoid this payment by agreements with the Red Caps which clearly violate the spirit of the Fair Labor Standards Act. Whether they violate the letter of the law is up to the courts to determine. Such a determination will be sought at an early date.

"I want to take this opportunity to commend the practices followed by certain railroads under which, as a result of collective bargaining or otherwise, Red Caps are paid a salary aside from such tips as may be received. In my opinion, however, such instances are all too few. A substantial number of the railroads and terminal companies employing Red Caps have refused to make any effort to comply with the spirit of the Fair Labor Standards Act.

"We have received many complaints from Red Caps that the agreements are being used in a fraudulent manner in that the Red Caps are required to report 25 cents an hour in tips regardless of the amount they actually receive. We have also received complaints that these contracts were made and operate under duress.

"These and other charges were repeated by the Red Caps at an investigatory hearing held for the purpose of determining whether the records regulations should be amended to cope with this situation. I am

today issuing an amendment to the records regulations requiring that employers, whose employees are required to account for or turn over tips received from third persons, must keep certain additional records with respect to such employees.

"Without rendering any opinion on the validity under the Fair Labor Standards Act of any such arrangement, a question which the courts must ultimately decide, this amendment is designed to effect a break-down of the 'wages paid' into the amount of such tips as are claimed by the employer to be wages, under the Act, and any amount otherwise paid by the employer. It is believed that these additional records are necessary to protect the interests of all concerned pending an authoritative decision by the courts as to the validity of the contract."

Equipment and Supplies

M. & St. L. Program

The Minneapolis & St. Louis will spend \$1,210,000 in 1940 for improvements in addition to a regular maintenance expenditure of \$2,925,000. Included are 30 miles of new rails, 100 miles of new ballast, maintenance tools, the rebuilding of freight cars and locomotives, and new machine tools.

Orders for \$2,110,000 Placed by the New Haven

The New York, New Haven & Hartford has placed orders totaling \$2,110,000 for rails and new equipment, under federal court approval of the expenditure of \$2,800,000 for such purposes in 1940. The cost of the rolling stock will be covered through the issuance of equipment trust certificates for the amount needed and the trustees have sufficient cash on hand to make considerable payments on other equipment which they plan to buy next year. Orders have been placed for 7,500 tons of rail with the Carnegie-Illinois Steel Corporation and 7,500 tons with the Bethlehem Steel Company which will be used to replace track between New Haven, Conn., and Boston, Mass., and between Springfield, Mass., and New Haven. Orders were also placed with the American Locomotive Company for 10 Diesel-electric switching locomotives of 660 hp. each; with the Pullman-Standard Car Manufacturing Company for 25 steel caboose cars to be manufactured at Worcester, Mass., and to the same company for 250 high-side, 50-ton, coal cars.

LOCOMOTIVES

THE MINNEAPOLIS, NORTHFIELD & SOUTHERN plans to purchase three Diesel-electric locomotives for \$175,000.

THE ILLINOIS CENTRAL has ordered ten Diesel-electric switching and transfer locomotives from the Electro-Motive Corporation, the order including seven of 600 hp.,

one of 1,000 hp. and two of 2,000 hp. Inquiry for this equipment was reported in the *Railway Age* of September 23, page 456.

THE CENTRAL OF BRAZIL has ordered 17 locomotives of the 2-10-4 type; seven of these will be built by the American Locomotive Company and ten by the Baldwin Locomotive Works. These locomotives will be of meter gage and will have 20-in. by 24-in. cylinders, 48¼-in. drivers, and will weigh 248,000 lb. in working order. E. B. Cotrim, chief engineer, Praca da Republica, Rio de Janeiro.

THE CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC has been authorized by the federal district court to purchase ten 4-8-4 type freight locomotives from the Baldwin Locomotive Works and to build 2,000 50-ton box cars in its own shops. It was reported in the *Railway Age* of September 30 that the company would ask the court for permission to purchase the equipment.

THE SOROCABANA RAILWAY (Brazil) has placed orders for four locomotives of the 4-10-2 type with the American Locomotive Company. These locomotives will be of meter gage and will have three cylinders, two of 17½ in. by 24 in. and one of 17½ in. by 22 in. They will have 48-in. driving wheels and will weigh 246,000 lb. in working order. Mario Salles Souto, director, Sao Paulo, Brazil.

FREIGHT CARS

THE UNION PACIFIC is inquiring for 500 to 1,000 ballast cars of 50 tons' capacity.

THE NORFOLK & WESTERN is inquiring for 1,000 hopper cars of 70 tons' capacity.

THE TEXAS & PACIFIC is inquiring for 500 steel-sheathed, wood-lined box cars of 50 tons' capacity and 40 ft. 6 in. long.

THE NORTHERN PACIFIC is inquiring for 1,000 box cars of 50 tons' capacity, 750 gondola cars of 70 tons' capacity and 250 hopper cars of 70 tons' capacity.

THE NORTHERN PACIFIC, reported in the *Railway Age* of October 14 as about to ask for bids on 1,800 freight cars, is now inquiring for 750 50-ton gondola cars.

THE CHICAGO GREAT WESTERN has ordered 100 flat cars of 50 tons' capacity from the Pullman-Standard Car Manufacturing Company. Inquiry for this equipment was reported in the *Railway Age* of September 30, page 505.

THE CHICAGO, ROCK ISLAND & PACIFIC has ordered 1,000 box cars of 50 tons' capacity from the Pressed Steel Car Company. Inquiry for this equipment was reported in the *Railway Age* of September 16, page 425.

THE GREAT NORTHERN has ordered 750 ore cars of 75 tons' capacity from the Pressed Steel Car Company and 750 from the Bethlehem Steel Company. Inquiry for this equipment was reported in the *Railway Age* of October 7, page 540.

THE LOUISIANA & ARKANSAS has ordered 200 steel-sheathed box cars of 50 tons'

capacity and 50 ft. 6 in. long from the American Car & Foundry Co. Inquiry for this equipment was reported in the *Railway Age* of September 30, page 505.

THE LEHIGH & NEW ENGLAND has ordered 75 special type, hatchway roof, hopper bottom steel cars of 70 tons' capacity from the American Car & Foundry Co. These cars are to be used for bulk cement loading. Inquiry for this equipment was reported in the *Railway Age* of October 7, page 540.

THE SEABOARD AIR LINE has ordered 700 all-steel box cars of 50 tons' capacity from the Pullman-Standard Car Manufacturing Company, 100 all-steel hopper cars of 70 tons' capacity from the Bethlehem Steel Company and 100 flat cars of 50 tons' capacity from the American Car & Foundry Co. Inquiry for this equipment was reported in the *Railway Age* of October 7, page 540.

THE UNITED STATES NAVY DEPARTMENT, BUREAU OF SUPPLIES AND ACCOUNTS, has ordered from the American Car & Foundry Co., 32 cars, including 15 steel underframe flat cars of 50 tons' capacity and 40 ft. long, 8 steel underframe steel-sheathed box cars of 50 tons' capacity and 40 ft. 6 in. long, and 8 steel flat-bottom gondola cars of 50 tons' capacity and 40 ft. 6 in. long, for service at the Norfolk, Va., Navy Yard, and one steel twin hopper car of 50 tons' capacity and 30 ft. long, for service at the Indian Head, Md., Navy Yard.

IRON AND STEEL

CHILEAN STATE RAILWAYS.—The Bethlehem Steel Company is now rolling 5,000 tons of 95-lb. rail for these roads.

THE MISSOURI PACIFIC has been authorized by the federal district court to spend \$2,608,275 for the purchase of 35,855 tons of rails and fastenings.

THE CHICAGO, BURLINGTON & QUINCY has made commitments with the steel mills for its 1940 rail requirements, the tonnage to approximate 30,000.

THE BALTIMORE & OHIO has placed orders for 25,000 tons of steel rail, as follows: Carnegie-Illinois Steel Corporation, 11,600 tons of 131-lb. rail and 4,000 tons of 112-lb. rail; Bethlehem Steel Company, 8,400 tons of 131-lb. rail; Inland Steel Company, 1,000 tons of 131-lb. rail.

THE CHICAGO & NORTH WESTERN has ordered 22,000 tons of rails, placing 14,000 tons with the Carnegie-Illinois Steel Corporation, 6,000 tons with the Inland Steel Company and 2,000 tons for the Chicago, St. Paul, Minneapolis & Omaha with the Bethlehem Steel Company.

THE ATCHISON, TOPEKA & SANTA FE has ordered 69,700 tons of rails from the Carnegie-Illinois Steel Corporation, the Inland Steel Company, the Bethlehem Steel Company and the Colorado Fuel & Iron Company. A total of 27,800 tons of fastenings also were ordered.

THE ILLINOIS CENTRAL has ordered 7,000 tons of rails, placing 2,500 tons with the

Tennessee Coal, Iron and Railroad Company, 2,500 tons with the Carnegie-Illinois Steel Corporation and 2,000 tons with the Inland Steel Company. This brings the total tonnage ordered for delivery in 1940 to 17,600 tons.

THE UNION PACIFIC has ordered 87,500 tons of rails, placing 38,500 tons with the Colorado Fuel & Iron Company, 38,500 tons with the Carnegie-Illinois Steel Corporation and 10,500 tons with the Inland Steel Company.

The above tonnage placed with the Colorado Fuel & Iron Co. includes the 36,000 tons of rails reported in the *Railway Age* of October 14.

In addition, 20,500 tons of track fastenings were ordered. This purchase is in addition to that made earlier in the year of 96,900 tons of rails and 38,100 tons of fastenings.

Construction

CHICAGO & NORTH WESTERN.—This company has asked the Interstate Commerce Commission for authority to extend its Michigamme branch in Marquette County Mich., for the distance of one mile.

CHICAGO, BURLINGTON & QUINCY.—A contract has been awarded Boyd Jones, Omaha, for the installation of escalators in the Burlington passenger station at Omaha, Neb. The Otis Elevator Company, New York, has been awarded the contract for the escalators. The total cost of this project will be approximately \$38,000.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—A contract amounting to approximately \$22,000 has been awarded to Thorgersen and Ericksen, Chicago, for the construction of a mechanics building at Chicago and Grand avenues, Chicago. The building will be of semi-fireproof construction 35 ft. by 65 ft., with a concrete foundation, masonry walls and timber floor and roof construction.

PENNSYLVANIA AND ILLINOIS CENTRAL.—A contract amounting to \$1,206,591 has been awarded the Henry Bickel Company, Louisville, Ky., for grade separation and track elevation work in Louisville. The work will involve the elevation of two tracks of the Pennsylvania from the Ohio River bridge to Beckenridge street and to the Louisville & Nashville tracks at 11th and Maple streets; the relocation and elevation of the Illinois Central tracks between Market and 12th streets, and the construction of eleven railroad bridges of steel and reinforced concrete over various streets.

UNION PACIFIC.—A contract amounting to approximately \$70,000 has been awarded Ryberg Brothers, Salt Lake City, Utah, for the construction of a passenger station at Las Vegas, Nev. Additional work on the yard trackage, driveways and telephone and telegraph lines will bring the total cost of this project, which was reported in the *Railway Age* of June 24, to approximately \$115,000.

Continued on next left-hand page

MODERN POWER



Sets the pace

During the past few years modern steam locomotives have set a new pace for train movement.

To maintain present operating standards with increasing traffic you need additional new locomotives to replace all of the old locomotives.

LIMA LOCOMOTIVE WORKS, INCORPORATED, LIMA, OHIO



Supply Trade

The National Tube Company's office at New Orleans, La., is now located at 722 Canal Bank building.

H. E. Ankeney of the Chicago office of **Cutler-Hammer, Inc.**, Milwaukee, Wis., has been appointed in charge of the company's Indianapolis, Ind., territory.

D. S. Betcone, from 1935 to 1937 president of **Steel Buildings, Inc.**, has been appointed midwestern field representative of the **Douglas Fir Plywood Association**, with headquarters at Chicago.

The Harbor Plywood Corporation, Hoquiam, Wash., at a recent meeting of its board of directors elected **G. R. Birkelund** chairman of the board, and **E. W. Daniels**, president and general sales manager. **Huber F. Wise** was re-elected secretary-treasurer and will assume the added responsibility of production and operation.

Alfred H. Nicoll, San Francisco, Cal., district manager of the **Graybar Electric Company** since 1932, has been appointed assistant to the president, **Frank A. Ket-cham**, with headquarters at New York. Mr. Nicoll is succeeded at San Francisco by **J. P. Carson**, who has been sales manager at Los Angeles since 1932. **W. E. Guy**, manager of Graybar at Hammond, Ind., since its opening in 1928, has been transferred to Los Angeles to take Mr. Carson's place as sales manager.

Henry N. Gardner has been elected vice-president of the **Hulson Grate Company**, Keokuk, Iowa, in charge of sales in the eastern territory. Mr. Gardner, who is located at 35 Astral avenue, Providence, R. I., was born in South Swansea, Mass., on April 28, 1896. He completed public school and business college courses at Fall River, Mass., and for a short time served



H. N. Gardner

the New England Steamship Company in clerical capacities. He then became a service man and salesman in the employ of the Packard Motor Company, Inc., at Providence. In 1916 he entered the service of the New York, New Haven & Hartford as a locomotive fireman, advancing to locomotive engineman in 1926. In September,

1927, Mr. Gardner became service engineer of the Hulson Grate Company, and from 1934 until his election as vice-president he was special representative, sales, tests and service, eastern territory.

OBITUARY

William G. Tawse, service engineer for The Superheater Company, with headquarters at Chicago, died on October 5. Mr. Tawse was born in 1870 at Aberdeen, Scotland. At the age of 18 he started his railroad career with the Grand Trunk. In July, 1894, he served as a locomotive engineman on the Baltimore & Ohio, and was promoted to fuel supervisor in 1902. The following year he was transferred to the Chicago & Eastern Illinois as road foreman of engines. In January, 1911, he joined The Superheater Company as service engineer out of Chicago; was transferred in 1914 to the Pacific Coast and had represented the company in that area since. He took a prominent part in the work of the Traveling Engineers' Association and was identified with several other associations.

Financial

CANADIAN NATIONAL.—Directors.—S. J. Hungerford, president of the Canadian National and J. A. Northey and Wilfrid Gagnon have been re-elected directors of the railway for a term of three years. An order ratifying their re-election has been passed and issued by the federal Cabinet. Mr. Northey recently took the place of J. Y. Murdoch, eminent mining magnate, as a director.

Mr. Murdoch resigned from the C. N. directorate a few months ago after publishing letters indicating that he would not serve on the directorate unless the government took early steps to get a more vigorous President. In the last regular session of Parliament this exchange of letters between Mr. Murdoch and the Transport Minister, C. D. Howe, was tabled in the House of Commons by Mr. Howe but the Minister refused to go any farther and name a new President.

CHESAPEAKE & OHIO.—Equipment Trust Certificates.—This company has been authorized by Division 4 of the Interstate Commerce Commission to assume liability for \$4,200,000 of 2½ per cent equipment trust certificates, maturing in 10 equal annual installments of \$420,000 on October 1 in each of the years from 1940 to 1949 inclusive. The issue has been sold at 100.16 to Halsey, Stuart & Co., Inc., of Chicago, and associates, making the average annual cost of the proceeds approximately 2.4688 per cent.

CHESAPEAKE & OHIO.—Bonds.—This company has been authorized by Division 4 of the Interstate Commerce Commission to issue \$1,036,000 of general mortgage 4½ per cent gold bonds of 1892, and to sell the bonds, and \$1,039,000 of such bonds heretofore authenticated and delivered and

now held in the company's treasury, at par, to the Manufacturers Trust Company.

At the same time Division 4 authorized the Covington & Cincinnati Elevated & Transfer Bridge to extend from October 1, 1937, to March 1, 1992, the date of maturity of \$3,090,000 of first mortgage five per cent gold bonds. Both transactions are inter-company ones of the Chesapeake & Ohio system.

CHICAGO, BURLINGTON & QUINCY.—Abandonment.—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon a branch line extending from Birmingham, Iowa, northwesterly to Batavia, 14.6 miles.

CHICAGO, BURLINGTON & QUINCY.—Abandonment.—This company has asked the Interstate Commerce Commission for authority to abandon operation of the route extending from Ayr Junction, Nebr., thence over trackage of the company to Alma Junction; thence over trackage of the St. Joseph & Grand Island (leased to the Union Pacific) to Fairfield Junction; and thence over trackage owned by the C. B. & Q. to Clay Center, Nebr., 27.5 miles. The application states that the track between Ayr Junction and Alma Junction, 18 miles and between Fairfield Junction and Clay Center, 7.2 miles is to be dismantled and taken up.

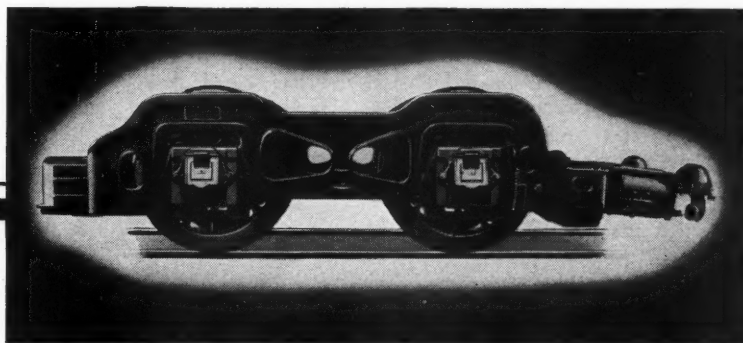
CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Equipment Trust Certificates and R. F. C. Financing.—This company has asked the Interstate Commerce Commission to approve a plan whereby the Reconstruction Finance Corporation would be asked to purchase \$5,080,000 of 2½ per cent equipment trust certificates which constitutes 80 per cent of the cost of purchasing 10 freight locomotives and 2,000 50-ton box cars.

CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.—Abandonment.—This company has asked the Interstate Commerce Commission to permit it to withdraw that part of an application for abandonment filed with the commission on August 10, and reported in the *Railway Age* for September 2, page 360, which asked for authority to abandon a branch line extending from Wyoming, Iowa, to Monticello, 17 miles. The original application asked permission to abandon a line between Eldridge, Iowa, and Oxford Junction, 35 miles, together with the above-mentioned branch. No reason was given for the desire to withdraw the application.

CHICAGO, SPRINGFIELD & ST. LOUIS.—Abandonment.—This company has asked the Interstate Commerce Commission for authority to abandon (1) its entire line extending from Springfield, Ill., to Lock Haven, 7.8 miles; (2) operation over a line of the Baltimore & Ohio extending for 0.4 mile in Springfield, Ill., and (3) operation over tracks of the Illinois Central Terminal from a point 0.7 mile north of Lock Haven, Ill., to Alton, 7.5 miles.

DANSVILLE & MT. MORRIS.—Abandonment of Operation.—This company has asked the Interstate Commerce Commission for authority to abandon the operation of that part of the line of the Avon,

**Your present equipment
Can meet the sudden
increase in traffic if
you supplement it with
BOOSTER* POWER**



*Trademark Registered United States Patent Office

The continued increase in traffic may soon exceed your power capacity. More tonnage requires more power. The Locomotive Booster is the quickest and cheapest way to get it. » » » Capitalize idle weight and spare steam by the Booster and make everything else more productive.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

**NEW YORK
CHICAGO
MONTREAL**

October 21, 1939

Genesee & Mt. Morris now leased by the Dansville & Mt. Morris from the Erie, extending 2.4 miles southeasterly from Mt. Morris, N. Y., in the direction of Sonyea. The reason given for the abandonment is that the Avon, Genesee & Mt. Morris has recently asked authority from the commission to abandon the line, and that if the application is granted, the Dansville & Mt. Morris would have no track over which to operate between these two points.

DENVER & RIO GRANDE WESTERN.—Reorganization.—Division 4 of the Interstate Commerce Commission has ordered that briefs supporting petitions requesting modifications of the commission's final plan of reorganization for this company be filled on or before November 15, and reply briefs on or before December 1.

FORDYCE & PRINCETON.—Abandonment.—This company has been authorized by Division 4 of the Interstate Commerce Commission to abandon (1) the portion of a line extending from Cynthia, Ark., to its terminus at station 385x00, approximately 1.1 miles, and (2) the portion of a line extending from station 158x40 to its terminus at Midway, Ark., two miles.

GEORGIA & FLORIDA.—Equipment Trust Refinancing.—Receivers for this road have applied to the Interstate Commerce Commission for approval of a plan whereby the Reconstruction Finance Corporation would take over for \$120,000 equipment trust certificates with a face amount of \$219,000, now held by the Fidelity-Philadelphia Trust Company which is unwilling to extend the maturity but willing to sell for the \$120,000. The road would repay the latter amount to the R. F. C. with four per cent interest in monthly installments of \$1,500 each, except the September payments which would be \$3,500.

ILLINOIS CENTRAL.—R. F. C. Loan for Equipment Repairs.—This road has applied for Interstate Commerce Commission approval of a \$5,000,000 loan which it is seeking from the Reconstruction Finance Corporation to finance repairs to 51 locomotives and 11,000 freight cars. The loan would run for three years with interest at 2½ per cent. The application states that the I. C. expects that the repair of the 11,000 cars will permit it to reduce its car-hire expenses by an amount sufficient to offset the charges on the loan; while the additional motive power made available by repairing the 51 locomotives will enable the road to handle without loss to competing agencies all traffic anticipated in the near future.

NEW YORK CENTRAL.—Abandonment by the Michigan Central.—The Michigan Central and the New York Central respectively, have asked the Interstate Commerce Commission for authority to abandon a part of the Caro branch and the operation of the branch extending from Caro, Mich., to Owendale Station, 20.2 miles.

PENNSYLVANIA.—Equipment Trust Certificates.—This company has been granted authority by Division 4 of the Interstate Commerce Commission to assume liability for \$8,865,000 of 2¾ per cent equipment

trust certificates, maturing in 15 equal annual installments of \$591,000 on October 1, in each of the years from 1940 to 1954, inclusive. The issue has been sold at 99.1187 to Salomon Brothers & Hutzler, acting on behalf of themselves and Dick & Merle-Smith, E. H. Rollins & Sons, and Stroud & Co., Inc., making the average annual cost to the company approximately 2.87 per cent.

SEABOARD AIR LINE.—Amended Equipment Trust Application.—This company has applied to the Interstate Commerce Commission for approval of amendments to its proposed equipment-financing plan as outlined in the *Railway Age* of September 23, page 458. The amendments would reduce the face amount of the certificates proposed to be issued from \$2,320,000 to \$2,310,000 and provide for payment in 15 annual installments instead of 10.

SEABOARD AIR LINE.—Special Master Appointed.—Judge L. B. Way of the federal district court at Norfolk, Va., has appointed Tazewell Taylor, attorney, Norfolk, as special master to expedite reorganization of this railroad. In explanation, the judge said he was not available at all times to hear matters in connection with reorganization and it was necessary that a special master be so available and further that he might be able to forestall litigation which might arise out of reorganization proceedings.

WABASH.—R. F. C. Loan.—This company has asked the Interstate Commerce Commission for approval of a loan and the Reconstruction Finance Corporation for a loan of \$9,300,000, of which \$6,500,000 is to be applied to the retirement of a like amount of equipment notes issued by the company to the R. F. C., and \$2,800,000 to be applied to the cost of repairing and rehabilitating 1,694 automobile box cars.

WESTERN PACIFIC.—Extension of R. F. C. Loan.—This company has asked the Interstate Commerce Commission for approval and the Reconstruction Finance Corporation for an extension of its \$10,000,000 loan from December 1, 1939, to December 1, 1940.

WHEELING & LAKE ERIE.—Equipment Trust Certificates.—This company has asked the Interstate Commerce Commission for authority to assume liability for \$1,200,000 of 2½ per cent equipment trust certificates, series F, to be dated November 15, 1939, and to mature serially in equal annual installments on November 15, in each of the years from 1940 to 1949, inclusive. The proceeds will be used to purchase 500 all-steel self-clearing hopper cars and 200 light weight Corten steel box cars of 50-ton capacity.

Dividends Declared

Wheeling & Lake Erie.—Prior Lien.—\$1.00, quarterly, Preferred, \$1.37½, quarterly, both payable November 1 to holders of record October 26.

Average Prices of Stocks and Bonds

	Oct. 17	Last week	Last year
Average price of 20 representative railway stocks...	35.46	34.53	30.91
Average price of 20 representative railway bonds...	60.51	60.30	60.80

Railway Officers

EXECUTIVE

Chester G. Hayes, traffic manager of the Texas & Pacific, has been elected vice-president—traffic, with headquarters as before at Dallas, Tex.

Robert E. Woodruff, operating vice-president of the Erie, was named Co-Trustee and chief operating officer of this road by the District court on October 18, the selection being subject to the approval of the Interstate Commerce Commission.

W. H. Tobin, assistant general manager of the Texas & Pacific, has been appointed assistant vice-president, a change of title, with headquarters as before at Dallas, Tex., and **C. Percy**, assistant to general manager, has been appointed assistant to the vice-president, also a change of title. **C. C. Kilway**, trainmaster, with headquarters at Mineola, Tex., has been promoted to assistant to the vice-president, with headquarters at Dallas, a newly created position.

OPERATING

W. H. Irwin, acting district superintendent of the Pullman Company at Houston, Tex., has been appointed district superintendent at that address.

Arthur R. Ross, associate to the president of the Board of Public Service, St. Louis, Mo., has been appointed superintendent of the rail deck of the Municipal Bridge, with headquarters as before at St. Louis.

M. L. Long, acting superintendent of the labor and wage bureau on the Western region of the Pennsylvania, with headquarters at Chicago, has been promoted to superintendent of that bureau, with the same headquarters.

F. W. Curtis, supervisor of safety and fire prevention of the Denver & Rio Grande Western, has been appointed superintendent of safety and fire prevention, a change of title, with headquarters as before at Denver, Colo.

T. M. Mickelson, a conductor on the W. M. & P. districts of the Chicago Great Western, has been promoted to trainmaster, with headquarters at St. Paul, Minn., succeeding **George F. Orlemann**, whose promotion to acting superintendent at St. Paul, was announced in the *Railway Age* of September 30.

W. M. Kent, whose retirement as general superintendent of the Louisiana and North West, with headquarters at Homer, La., was reported in the *Railway Age* of September 16, entered railway service at the age of 13 with the Illinois Central as a call boy at McComb, Miss. He studied telegraphy in the dispatcher's office at McComb and continued in service as a telegraph operator until 1901, when he went

Continued on next left-hand page



READING RAILWAY BRIDGE WISSAHICKON CREEK

This stone structure, which carries the two tracks of the Norristown Branch of the Reading Railway over the Wissahickon Creek and Drive in Fairmount Park, Philadelphia, Penna., was completed in 1882. Its splendid proportions, 491 ft. in length, with five spans of 65 ft. and four spans of 10 ft., are greatly enhanced by its unusually attractive setting. * * * *

Unlike the Reading Bridge, the Security Sectional Arch is situated in a very prosaic spot,—but its purpose is equally as practical. For 30 years Security Sectional Arches have been helping railroads effect economies in fuel consumption. But only when every brick is in place can *true* fuel economy be realized.

There's More to SECURITY ARCHES Than Just Brick

**HARBISON-WALKER
REFRACTORIES CO.**

Refractory Specialists



**AMERICAN ARCH CO.
INCORPORATED**

60 EAST 42nd STREET, NEW YORK, N. Y.

***Locomotive Combustion
Specialists***

with the Texas and Pacific as an operator. He was later promoted to dispatcher at New Orleans, La., and subsequently to chief dispatcher, trainmaster, superintendent of the Rio Grande division at Big Spring, Tex., and superintendent of the Ft. Worth division at Ft. Worth, Tex. In 1922, Mr. Kent went with the Louisiana and North West as superintendent, with headquarters at Homer, and was later appointed general superintendent, holding the latter position until his retirement because of physical disability and failing health on September 1, 1939.

F. W. Gleisner, trainmaster on the New York Central at Kingston, N. Y., has been appointed acting assistant superintendent of the New York Terminal district, with headquarters at New York. **S. J. Keating**, train dispatcher at Weehawken, N. J., has been appointed acting trainmaster of the River division, with the same headquarters.

T. E. Griswold, terminal trainmaster on the Texas & Pacific at Texarkana, Ark., has been appointed trainmaster, with headquarters at Mineola, Tex., succeeding **C. C. Kilway**, whose promotion to assistant to the vice-president, with headquarters at Dallas, Tex., is announced elsewhere in these columns, and **Lloyd White** has been appointed terminal trainmaster at Texarkana, replacing Mr. Griswold.

S. L. Fee, general superintendent of the Omaha, Lincoln and Wymore divisions of the Chicago, Burlington & Quincy, with headquarters at Lincoln, Neb., has been promoted to general superintendent of the Eastern district with headquarters at Galesburg, Ill., succeeding **G. L. Griggs**, whose death on October 8, was announced in the *Railway Age* of October 14, and **F. E. Haines**, superintendent of the Hannibal division, with headquarters at Hannibal, Mo., has been promoted to general superintendent, with headquarters at Lincoln, replacing Mr. Fee. **H. E. Hinshaw**, assistant to general manager, with headquarters at Omaha, Neb., has been promoted to superintendent of the Hannibal division, with headquarters at Hannibal, relieving Mr. Haines, and **G. W. Eckhardt**, trainmaster at St. Joseph, Mo., has been promoted to assistant to general manager, with headquarters at Omaha, succeeding Mr. Hinshaw. **L. B. Denton**, trainmaster at Alliance, Neb., has been advanced to assistant superintendent of the Sheridan division, with headquarters at Sheridan, Wyo., replacing **D. J. Nelson**, who retired on October 13, after more than 44 years of service.

TRAFFIC

S. C. Clarke, acting general agent on the Union Pacific at Gering, Neb., has been appointed general agent at that point.

R. P. Reed, traveling freight agent on the Great Northern at Denver, Colo., has been promoted to general agent at that point, a newly created position.

Glen Darling has been appointed general agent, freight department, on the New York Central at Detroit, Mich., succeeding

A. B. Johnson, who has been appointed industrial agent at that point, and **W. E. Carbery** has been appointed general agent at Jacksonville, Fla., replacing **F. P. Sandford**.

C. R. Reynolds, chief rate expert on the Illinois Central at Chicago, has been promoted to assistant general freight agent at Atlanta, Ga., a newly created position.

David McClure, assistant general passenger agent on the Chicago, Rock Island & Pacific, with headquarters at Chicago, retired on October 15.

F. D. Adams has been appointed general agent for the Midland Valley, the Kansas, Oklahoma & Gulf and the Oklahoma City-Ada-Otako, at Ada, Okla., succeeding **M. M. Harwell**, deceased. **Lewis S. Wickes**, general agent at Oklahoma City, Okla., has been transferred to Shawnee, Okla., and **S. E. Golderman** has been appointed general agent at Oklahoma City, replacing Mr. Wickes.

ENGINEERING AND SIGNALING

Frank J. Jerome, whose promotion to assistant chief engineer on the New York Central, with headquarters at Chicago, was



Frank J. Jerome

announced in the *Railway Age* of October 7, was born at Painesville, Ohio, on May 26, 1890, and graduated from Williams College in 1911, and from Massachusetts Institute of Technology in 1914. He entered railway service with the New York Central on July 6, 1914, as a transitman at Elyria, Ohio, and in March of the following year he was transferred to Toledo, Ohio. In 1917, he was appointed assistant engineer at Chicago, and on August 20, 1923, he was promoted to trainmaster at that point. Mr. Jerome was appointed division engineer, with headquarters at Chicago, on November 1, 1927, and in April, 1938, he was promoted to engineer maintenance of way on the Michigan Central, with headquarters at Detroit, Mich., holding this position until his recent appointment.

James A. Stocker, whose appointment as district engineer in charge of engineering and maintenance on the Erie, Cleveland, Toledo, Western and Ohio Central

divisions of the New York Central System, with headquarters at Cleveland, Ohio, was announced in the *Railway Age* of October 7, was born at Gnadenhutten, Ohio,



James A. Stocker

on April 11, 1875, and graduated in civil engineering from Ohio State University in June, 1902. Mr. Stocker entered railway service in October, 1902, as a rodman on the Kanawha & Michigan (now part of the New York Central System) at Charleston, W. Va. On February 1, 1907, he was promoted to division engineer, with headquarters at Charleston, and one year later he went with the Marietta, Columbus & Cleveland (now abandoned) as superintendent and engineer, with headquarters at Marietta, Ohio. On May 1, 1908, Mr. Stocker was appointed engineer of construction of the Toledo & Ohio Central and the Hocking Valley, with headquarters at Columbus, Ohio, and on February 1, 1910, he was promoted to chief engineer of the Ohio Central lines of the New York Central, with headquarters at Columbus, Ohio. On November 1, 1931, Mr. Stocker was appointed engineer of construction of the Lines West of Buffalo and of the Ohio Central lines, with headquarters at Cleveland, Ohio, the position he held until his recent appointment.

George H. Harris, whose appointment as chief engineer on the New York Central, with jurisdiction over the Canada,



George H. Harris

Detroit, Michigan, West, Erie, Cleveland, Toledo, Western and Ohio Central divi-

Continued on next left-hand page

THEY ARE GOOD

New Elesco superheater units are the best that science has been able to devise. They have been progressively improved from a basically correct engineering design.

THEY ARE REASONABLY PRICED

Their cost on a mileage basis is negligible. This applies to both new units and units REManufactured at our plant from your old equipment.



A-1365

THE SUPERHEATER COMPANY

Representative of AMERICAN THROTTLE COMPANY, INC.

60 East 42nd Street, NEW YORK

122 S. Michigan Avenue, CHICAGO

Canada: THE SUPERHEATER COMPANY, LTD., MONTREAL

Superheaters • Exhaust Steam Injectors • Feedwater Heaters • American Throttles • Pyrometers • Steam Dryers

October 21, 1939

14

sions, with headquarters at Chicago, was announced in the *Railway Age* of October 7, was born at Toledo, Ohio, on July 17, 1878, and received his engineering education at the University of Michigan. He entered railway service in 1901 on the construction of the Detroit and Toledo Shore Line, and in 1902, he became an assistant on the engineering corps of the Pennsylvania at Chicago. A year later, Mr. Harris joined the engineering organization of the Michigan Central as an assistant engineer, and in 1905 he was promoted to division engineer, with headquarters at Niles, Mich., but was reappointed assistant engineer, with headquarters at Detroit, a year later. From 1907 to 1910, he was assistant engineer in charge of the grade separation project of the Michigan Central and the Chicago, Rock Island & Pacific at Joliet, Ill., and on the latter date, he was promoted to division engineer at St. Thomas, Ont. In 1912, Mr. Harris was transferred to Detroit, and in 1913, he was appointed engineer of track, which position he held for three years before being advanced to engineer maintenance of way. During the period between 1917 and 1919, he was acting assistant chief engineer, and in the latter year was appointed special engineer. He served as engineer maintenance of way in 1920-1921 and was promoted to assistant chief engineer in the latter year. On November 1, 1931, Mr. Harris was promoted to chief engineer of the Michigan Central, with headquarters at Detroit, and held this position until his recent appointment as chief engineer on the New York Central System, with headquarters at Chicago.

William O. Houston, whose promotion to district engineer in charge of engineering and maintenance on the Canada, Detroit, Michigan and West divisions of the New York Central System, with headquarters at Detroit, Mich., was announced in the *Railway Age* of October 7, was born at Burlington, Kan., and graduated in civil engineering from the University of Michigan in 1904. He first entered railway service during summer vacations while attending school, on the engineering



William O. Houston

corps of the Ann Arbor and the Michigan Central. Upon graduation, Mr. Houston entered the service of the Michigan Cen-

tral as an instrument man. On January 1, 1905, he went with the New Orleans Great Northern (now a part of the Gulf, Mobile & Northern) as a transitman on location, and later became bridge inspector, resident engineer and division engineer. In April, 1909, he returned to the Michigan Central as assistant engineer in charge of the construction of the Windsor Yard and tunnel approach at Windsor, Ont. In April, 1910, Mr. Houston went with the Nevada Central as a special engineer in charge of repair of a line which had been badly washed out by flood, and three months later, he returned to the Michigan Central as assistant engineer at St. Thomas, Ont. In May, 1912, he was appointed construction engineer at Detroit, and a month later he was promoted to division engineer, with headquarters at St. Thomas. In September, 1913, Mr. Houston was transferred to Jackson, Mich., where he remained as division engineer until his recent promotion, which was effective October 1.

D. F. Apple, supervisor of track of the Chesapeake & Ohio, with headquarters at Thurmond, W. Va., has been appointed assistant division engineer, with headquarters at Covington, Ky.

MECHANICAL

P. H. Mitchell, master car builder of the Delaware, Lackawanna & Western, has been appointed superintendent car depart-



P. H. Mitchell

ment, with headquarters at Scranton, Pa. **K. H. Carpenter** has been appointed assistant superintendent car department, with headquarters at Scranton. The positions of master car builder and general car inspector have been abolished. Mr. Mitchell was born at Prescott, Ark., and entered railroad service as a car repairman with the Prescott & Northwestern and subsequently was employed as a car foreman on the Memphis, Dallas & Gulf (now part of the Graysonia, Nashville & Ashdown and the Murfreesboro-Nashville) at Nashville, Ark. Leaving that company Mr. Mitchell entered the employ of the San Antonio, Uvalde & Gulf as air brake inspector and steam heat supervisor, later returning to the Memphis, Dallas & Gulf as master car builder. He was general car

inspector of the Texas & Pacific, at Dallas, Tex., prior to entering the service of the Delaware, Lackawanna & Western in 1936. Mr. Mitchell served as general car inspector of the Lackawanna at Scranton until March, 1938, when he was appointed master car builder, the position he held until his recent appointment as superintendent car department.

OBITUARY

T. R. Rutledge, assistant to the chief engineer of the Union Pacific, died at Omaha on October 4, of a brief illness, following an asthmatic attack.

A. E. Warren, vice-president of the Western region of the Canadian National, with headquarters at Winnipeg, Man., died on October 16 at the age of 65.

William W. O'Toole, auditor of the Chicago, North Shore & Milwaukee, with headquarters at Highwood, Ill., died on October 16, at the Lutheran Deaconess hospital in Chicago.

C. R. Hunter, division superintendent on the Chicago & North Western, with headquarters at Sioux City, Iowa, died suddenly on October 4, as the result of injuries received in an automobile accident. Mr. Hunter was born on September 14, 1878, and entered railway service on October 16, 1898, as a telegrapher on the North Western. He was later promoted to dispatcher and was further advanced to chief dispatcher of the Iowa division at Boone, Iowa, in 1911. In 1918, he was promoted to trainmaster on the Sioux City division and in 1933, he was advanced to superintendent of that division, with headquarters at Sioux City, the position he held at the time of his death.

Roger T. Taylor, division superintendent on the Northern Pacific, with headquarters at Tacoma, Wash., died in a Tacoma hospital on October 14, following an extended period of ill health. Mr. Taylor was born at Lafayette, Ind., on August 21, 1884, and graduated in civil engineering from Purdue University in 1906. He entered railway service immediately following graduation as a rodman on construction work on the Northern Pacific and was later advanced to levelman, instrumentman and resident engineer on construction. In 1909, he was appointed assistant roadmaster and later was promoted to roadmaster at Dilworth, Minn. In 1914, he was advanced to trainmaster, with headquarters at Duluth, Minn., and in 1917, he was promoted to assistant to the general superintendent at Livingston, Mont. Mr. Taylor was appointed superintendent of icing facilities for the entire system, with headquarters at St. Paul, Minn., in 1925, and the following year, he was appointed assistant superintendent, with headquarters at Billings, Mont. He was promoted to superintendent of the Yellowstone division, with headquarters at Glendive, Mont., in July, 1927, and two years later, he was transferred to Fargo, N. D. Mr. Taylor was transferred to Spokane, Wash., in 1932, and to Tacoma in 1934, where he remained until his death.